

Complete Water Solutions
from source to source

Water is Life

Water is the prime resource essential for survival of human life on earth. All ecosystems and habitats owe their existence to water. Fresh water is available only 2.7% though the surface of planet earth is geographically covered more than 70% with water. Sustainable water management in India is fast becoming a necessity with the looming crisis over water resources threatening the security and livelihood of the population and environment.

[Managing our water resources better – the only solution]



Inspiration to Excellence



Punam Chand Sethi
— Founder —
(1929-2012)

From a small beginning in 1967, his innovative enterprise approach, invaluable lessons in business management combined with ingenuity help fuel the rise of business that prosper to become the foundation of SPML. Under his dynamic leadership, SPML emerged as a leading conglomerate with interests in infrastructure development, water, power, smart cities, roads & highways, environment, coal etc. He had deep understanding of water business in India, and his extensive experience and knowledge of the water sector led SPML to become one of the top water management companies in the country; the Indian company among World's Top 50 Private Water Companies.

He always believed in the spirit of giving and worked relentlessly for the betterment of economically weaker section of the society with his several social endeavours. In pursuance of his dream, SPML Family is driving the growth of the company.

SPML Infra Limited

Established in 1981, SPML Infra Limited (BSE: 500402 / NSE: SPMLINFRA) is a leading public listed infrastructure development company that has managed and implemented over 600 projects across India on EPC (Engineering, Procurement and Construction), PPP (Public Private Partnership) and BOOT (Build Own Operate Transfer) basis.

SPML has over three decades of multidisciplinary experience in executing world-class infrastructure for water treatment and transmission, wastewater treatment and recycling, solid waste management, power transmission and distribution, smart cities and civil infrastructure development. SPML is among the world's top 50 private water companies as per Global Water Intelligence, London.

Engineering to the Core

SPML has integrated its strength in basic and in-depth engineering, process technology, project management, procurement, fabrication, erection, construction and commissioning to offer distinct responsibility under strict delivery agendas. Many of the engineering and construction projects executed by SPML have set new benchmarks in terms of scale, sophistication and speed.

International Alliances

Strategic alliances with offshore technology-domain leaders enable access to technical know-how to execute projects better and faster to continue its endeavor in giving the best in quality and service. Specific technology tie-ups are carried out on case to case basis matching global standards.

In-house Research & Development

SPML has in-house engineering capabilities for both project design and construction to provide integrated solution for designing and building the project to meet clients' requirements. Its design, engineering, IT enabled facilities include the modern CAD centre using various design and project management softwares.



VISION

Creating with passion and innovation, world class infrastructure to make human life comfortable

MISSION

Profitable growth through superior project management, innovation, quality and commitment

VALUES

- Customer orientation
- Wealth creation
- Employee empowerment
- Systems and processes
- Teamwork and cooperation
- Pro-activeness and innovation

PHILOSOPHY

To us at SPML, success is a measure of promises kept. It is the single most cherished dream in every project that we have decided to undertake. Commitment to the cause is what has driven us in the last three decades. And commitment is the key in times ahead.

STRENGTHS

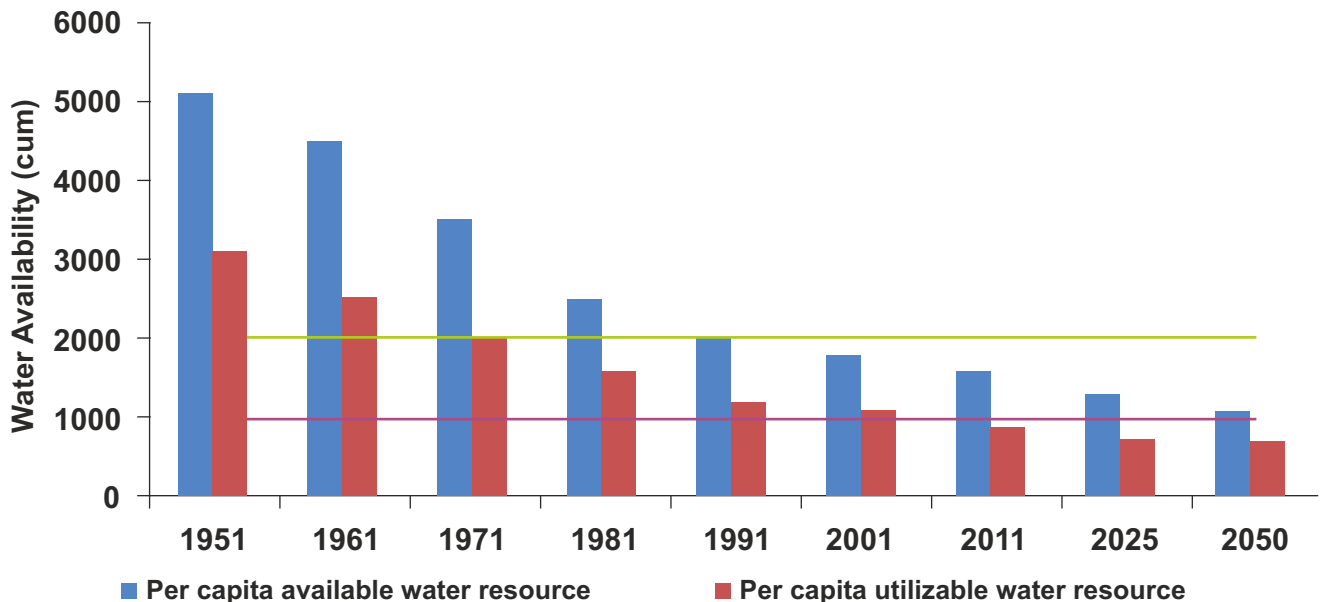
- Execution efficiency
- In-house engineering and design capabilities
- Sector focused
- National presence
- More than 600 projects completed
- Visionary Board and experienced Management Team
- Strong Financial profile
- Rich base of owned construction equipment and fixed assets
- Effective policies and adherence to QHSE
- Long-team support of business associates
- ISO-9001:2015 certified public listed company

Water Scenario in India

Water is life. It is a unique natural resource among all sources available on earth to support and sustain life. In India from being infinite and renewable, it has become a finite and vulnerable. The water resources in India are under tremendous pressure from increasing population, rapid urbanization, changing life styles, economic and industrial development, and traditional agriculture method. Access to clean drinking water for a large population is inadequate and water related disasters such as floods and droughts are increasing. Vulnerability to climate change poses immense pressure for sustainability of water systems and humanity. The battle against time remains top of mind for water.

By 2050, India's total water demand will increase by 32 per cent. Industrial and domestic sectors will account for 85 per cent of the additional demand. Over-exploitation of groundwater, failure to recharge aquifers and reduction in catchment capacities due to uncontrolled urbanization are all causes for the precarious tilt in the water balance. If the present rate of groundwater depletion continues, India will only have 22 per cent of the present daily per capita water available in 2050, possibly forcing the country to import its water.

Per Capita Water Availability in India



Ministry of Water Resources has estimated that per capita water availability will be reduced by almost 36 per cent by 2025 and alarmingly 60 per cent by 2050 from that of 2001 levels. The standing subcommittee of Ministry of Water Resources has estimated that the water demand will escalate from 813 billion cubic meter (bcm) in 2010 to 1093 bcm in 2025 and to 1447 bcm by the year 2050.

Integrated approach towards complete Water Solutions

Water is life's most important element. There is a growing challenge to provide quality water to rapidly increasing urban population with efficient water supply, drainage and wastewater management systems. SPML has been promoting sustainable water management – an important and complex task as natural resources continue to deplete and demand rises. SPML provides solutions for every need regarding the use of water, be it domestic, agriculture or industrial. It makes important contribution towards conserving the precious resource across the nation by reducing wastage, losses and pilferages with smart infrastructure and management. The strong commitment towards water helped in serving large population of over 40 million people with drinking water facilities.

Scope of Services

Drinking Water – Supply & Distribution Management

- Water Treatment Plant
- Pumping Station
- Water Reservoir (Elevated/Ground)
- Pipeline & Distribution Network
- House Service Connection
- Metering & Billing
- Instrumentation & IMIS
- PLC & SCADA
- Water Loss & NRW Management
- O&M of Water Supply Schemes

Wastewater Collection/Treatment/Reuse

- Sewage Treatment Plant
- Effluent Treatment Plant
- Tertiary Treatment Plant
- Water Reuse & Recycling
- Integrated Sewerage Network
- Sewage Pumping Station/Pipeline
- Sludge Treatment & Energy Recovery
- Storm Water Drainage
- Sewer Pipeline Rehabilitation

Irrigation

- Dam & Barrage
- Canal
- Lift Irrigation
- Micro Irrigation

Water to Power Plants

- Raw Water Intake System
- Cooling Water System
- Service Water System
- Auxiliary Water System

Water Treatment Plant

Reliable water treatment plants are essential for modern infrastructure to make drinking water available which comes from groundwater, lakes, streams, rivers, canals or sea, and should be treated and cleaned before being distributed for potable and non-potable use.

With strong foothold in the domain of design, construction, operation and maintenance of high capacity water treatment plants (WTP), SPML has infrastructure and resources required to implement drinking water supply and distribution system with required technology to monitor quantity and quality of water supplies including billing system. For industrial clients, the emphasis is on refining water suitable for the production purposes. It provides wide range of solutions from coagulation & flocculation, sedimentation, media filtration, and disinfection to the state of the art technologies such as membrane filtration & advanced oxidation process (AOP). SPML is supplying water every day meeting the needs of millions of people across India.

Scope of Services

- Design and planning
- Construction of flocculation and filters
- Pre-ozonation and chemical dosing
- Lamella settling, sludge beds and pulsating beds
- Single-layer and multi-layer filtration
- Adsorption on activated carbon beds
- Treatments with Membrane Filtration, Ultra Filtration, Reverse Osmosis, Iron and Arsenic Removal and Electro-dialysis Reversal membranes
- Cleaning water recovery system
- Operation & maintenance



200 MLD WTP, Surajpura, Rajasthan



160 MLD WTP, Dhannaser, Rajasthan



125 MLD WTP, Pokhran, Rajasthan



100 MLD WTP, Goa



68 MLD WTP, Hubli Dharwad, Karnataka

Pumping Station

Harnessing its capacities across modern technology, capital, engineering, equipment, and operations, SPML has constructed a number of energy efficient pumping stations for water supply, irrigation, wastewater and storm water drainage of any magnitude and scale in cities, townships, and villages across India.

It has executed a number of pumping stations with modern facilities including fully automatic operation with easy removal of pumps for maintenance.

Scope of Services

Design, planning, installation and commissioning of

- 💧 Horizontal Pumps
- 💧 Vertical Pumps
- 💧 Submersible Pumps
- 💧 Hydro Pneumatic Pumps
- 💧 Metallic Volute Pumps
- 💧 Sewage Pumps
- 💧 Automation
- 💧 Electrical & mechanical installation
- 💧 Operation & maintenance



500 MLD Pumping Station for Drinking Water Supply to Bangalore City, Karnataka



500 MLD Underground Pumping Station for Drinking Water Supply to Jaipur City, Rajasthan



9,925 MLD Pumping Station for Lift Irrigation, Tembhu, Maharashtra



410 MLD Pumping Station for Treated Effluent Disposal, Yamuna Vihar, Delhi



125 MLD Pumping Station for Drinking Water Supply, Pokhran, Rajasthan

Pipeline

SPML has extensive experience in design, supply, laying, jointing, testing and commissioning of bulk and distribution pipeline network for domestic and industrial water supply, treating water for reuse from sewage, effluent, irrigation, institutional, power etc. It has achieved a leading position and already laid more than 10,000 kilometers of pipeline upto 3500 mm diameters in different geographical regions of India. It has developed expertise for both the business and technical management of large pipe networks with planning, laying and managing cross-country pipelines of any length and size (upto 4000 mm diameter) in all terrain conditions for drinking water, wastewater, irrigation, power and flood water transportation and management.

Scope of Services

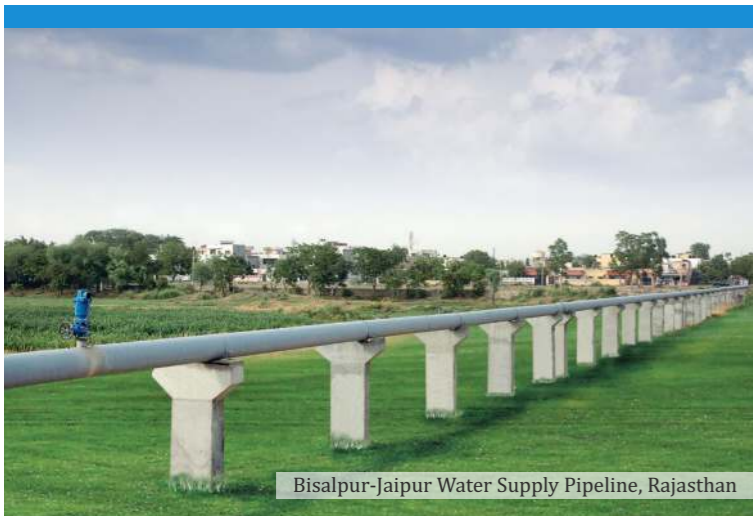
Design, planning, laying, jointing and commissioning of

- ◆ Mild Steel (MS)
- ◆ Ductile Iron (DI)
- ◆ High Density Polyethylene (HDPE)
- ◆ Polyvinyl Chloride (PVC)
- ◆ Glass Fiber Reinforced Plastics (GRP)
- ◆ Reinforced Concrete Cement (RCC)
- ◆ Bar Wrapped Steel Cylinder (BWSC) Pipes

Operation & maintenance of pipeline networks



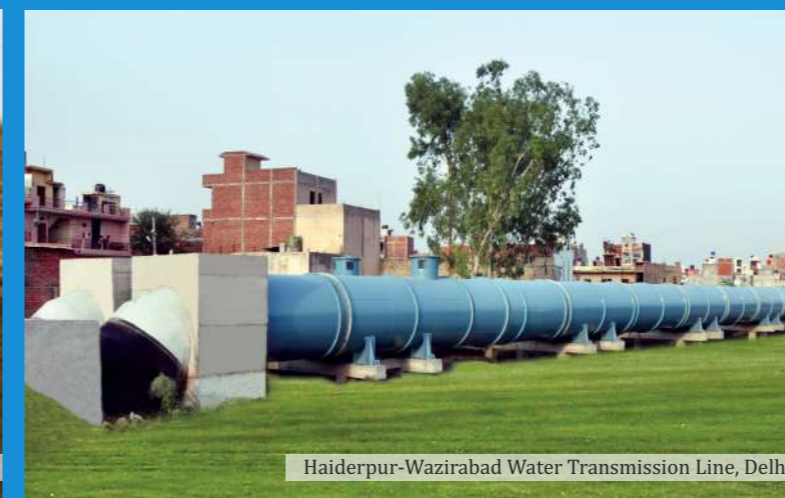
3000 MM Dia MS Pipeline, Sauni Yojana, Gujarat



Bisalpur-Jaipur Water Supply Pipeline, Rajasthan



City Water Supply Pipeline, Delhi



Haiderpur-Wazirabad Water Transmission Line, Delhi



Water Supply to Simhadri Super Thermal Power Plant, Andhra Pradesh

Irrigation

Water is an essential requirement for agriculture and in India almost 80 percent of fresh water goes into irrigation. SPML possesses the domain knowledge and expertise to provide services in a number of areas including construction of dams, canals, lift irrigation, micro irrigation and tunneling for bulk water transmission providing water for agriculture. It has constructed large dams, diversion tunnels, intake and de-silting, electro-mechanical works and associated civil works such as powerhouse, power tunnels, power intake and spillways in the water supply and irrigation sector.

SPML is executing one of the largest irrigation project in India under Saurashtra-Narmada Avtaran Irrigation (SAUNI) Yojana that envisage to irrigate 1.8 million hectare of land in Saurashtra, Kutch and north Gujarat benefiting millions of farmers and supplying potable water to 39 million people across 132 towns and 11,456 villages in Gujarat. SPML has completed the laying of around 78 kilometers of 3000 mm dia MS pipeline of 17.5 mm thickness with external 3LPE coating & internal food grade epoxy coating under phase I & II and executing phase III of this project by laying 139 kilometers pipeline and pumping station.

Capabilities:

- 💧 Dams & Barrage
- 💧 Canals
- 💧 Lift Irrigation
- 💧 Micro Irrigation
- 💧 Tunnels



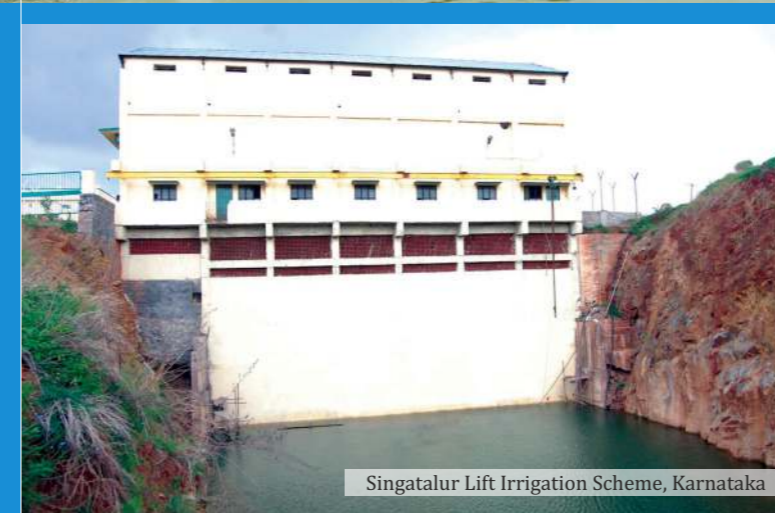
Kalisindh Concrete Gravity Dam, Rajasthan



Gosikhurd Barrage, Maharashtra



Tembhu Lift Irrigation Scheme, Maharashtra



Singatalur Lift Irrigation Scheme, Karnataka



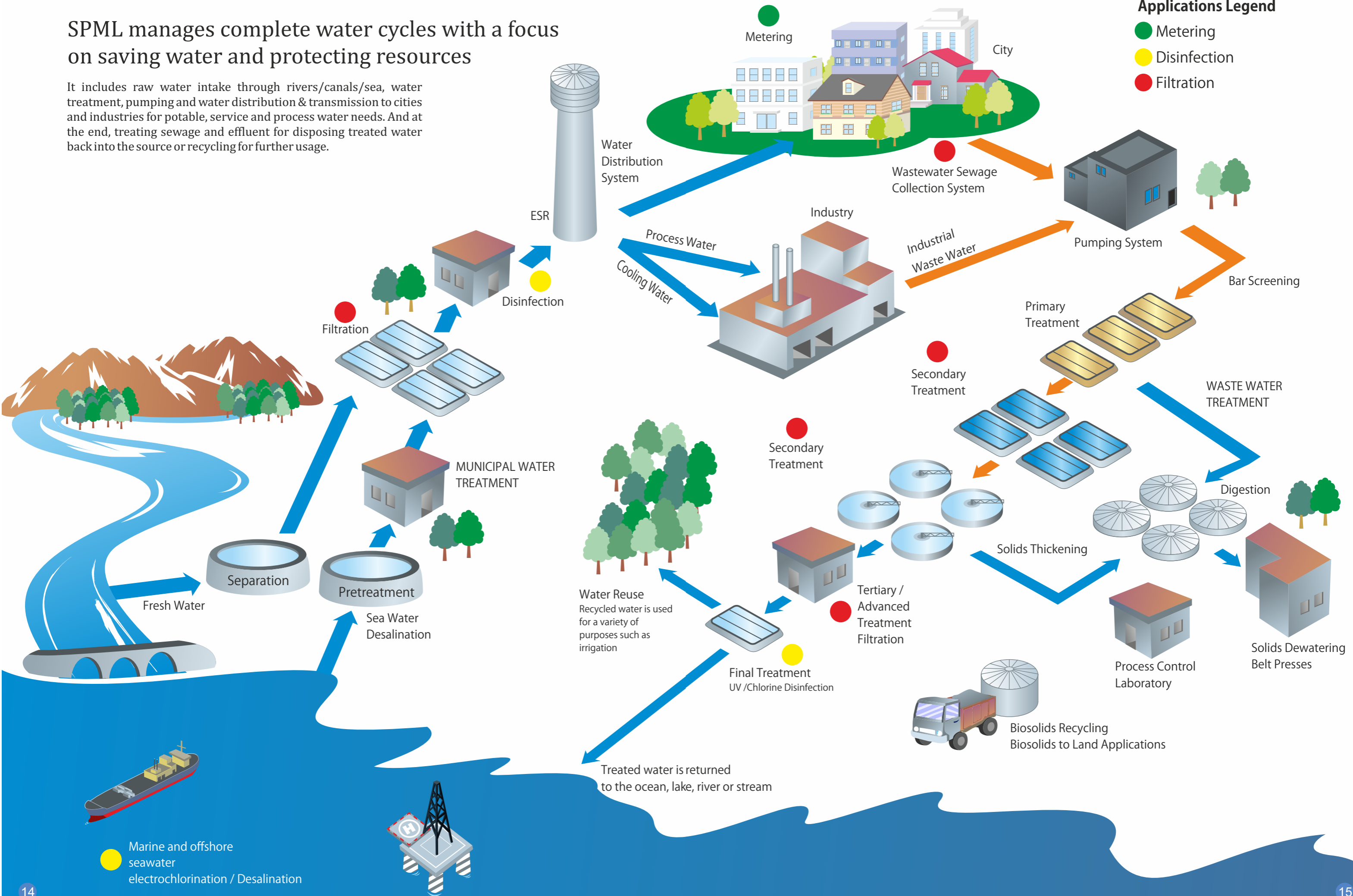
17.72 Kms 6 Mtr High Tunnel at Jihe Kathapur, Maharashtra

SPML manages complete water cycles with a focus on saving water and protecting resources

It includes raw water intake through rivers/canals/sea, water treatment, pumping and water distribution & transmission to cities and industries for potable, service and process water needs. And at the end, treating sewage and effluent for disposing treated water back into the source or recycling for further usage.

Applications Legend

- Metering
- Disinfection
- Filtration



Wastewater Treatment Plant

Wastewater treatment has become essential to address the shortage of fresh water and saving of surface and ground water sources. SPML has established a leading position in the treatment of wastewater from design to application of technology, construction to management and operation of sewage treatment plants, common effluent treatment plants, tertiary and water reuse treatment plants, sludge treatment, bio-gas & power generation. It has the capabilities to provide reuse with recovery of resources from waste as well as solutions for proper treatment and disposal of wastewater with specific processes such as anaerobic, anoxic, and aerobic. SPML builds plants which are fully equipped with PLC and SCADA system with reliable treatment technology for efficient operation and maintenance.

Wastewater Treatment

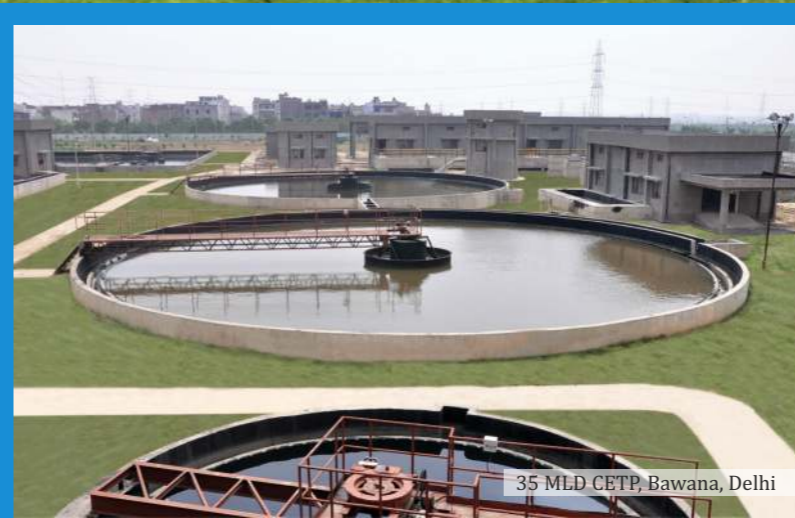
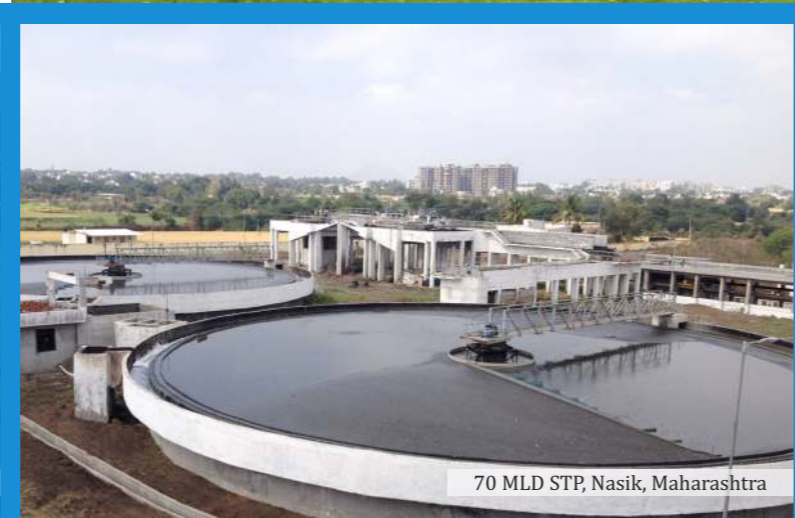
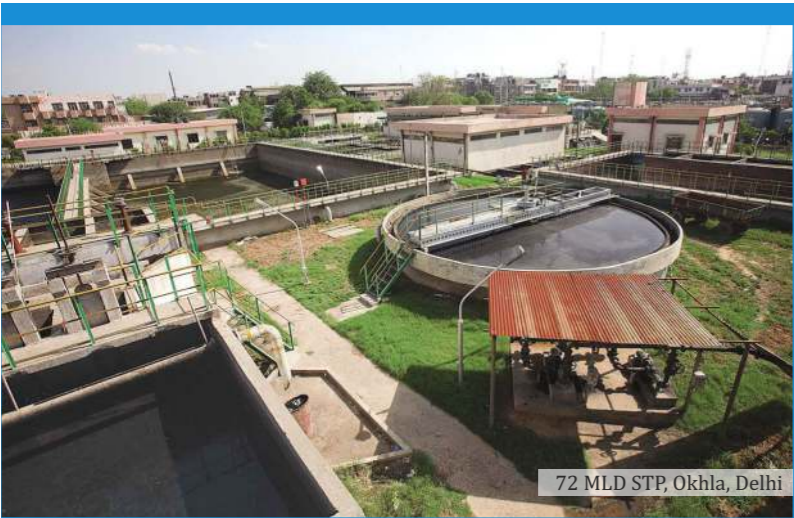
- 💧 Physical and Chemical Treatments
- 💧 Dissolved Air Flotation (DAF)
- 💧 Aerobic Biological Processes
- 💧 Anaerobic Biological Processes
- 💧 Membrane Biological Reactor (MBR)
- 💧 Sequencing Batch Reactor (SBR)
- 💧 Membrane/Sand/Cloth Filtration
- 💧 Tertiary Treatments

Sludge Treatment

- 💧 Thickening
- 💧 Digestion
- 💧 Mechanical Dewatering
 - Filter press
 - Belt filter press
 - Centrifuge
- 💧 Thermal Drying

Water Reuse and Recycling

- 💧 Filtration
- 💧 Reverse Osmosis
- 💧 Evaporation
- 💧 Zero Liquid Discharge (ZLD)
- 💧 Electrocoagulation & Biogas generation



Water to Power Plant

SPML has contributed significantly to enhance the power generation capacity with proven project management and delivery experience of its construction capabilities. It has provided start-to-end balance-of-plant solutions to help in enhancing the performance of critical power generation plants for balance-of-plant equipment, materials and solutions such as intake water, water treatment plants including DM plants, cooling water systems, station piping, civil including complete structural, mechanical & electrical works.

Scope of Services

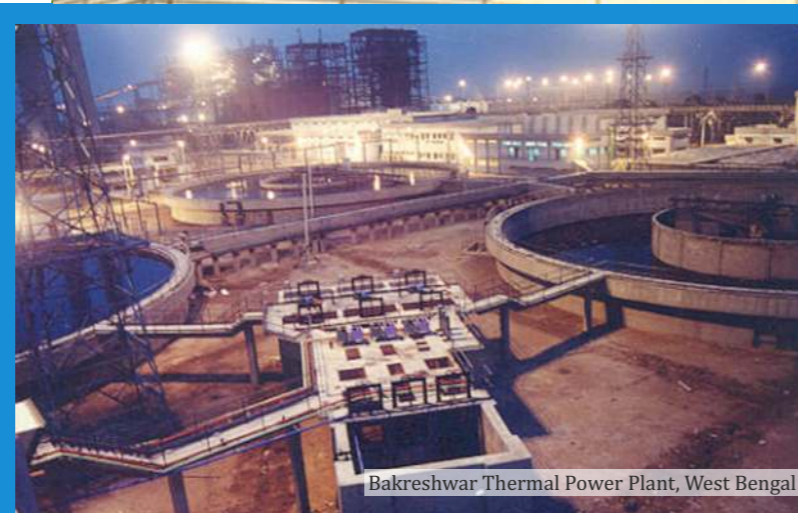
- 💧 Raw water intake system from canal, river or sea
- 💧 Cross country pipeline
- 💧 Raw water reservoir
- 💧 Raw water pumping system
- 💧 Pre-treatment plant
- 💧 Demineralization plant
- 💧 Effluent treatment plant
- 💧 Sewage treatment plant
- 💧 Reverse osmosis plant
 - Cooling water/Auxiliary cooling water
- 💧 Cooling tower
- 💧 Service water system
- 💧 Auxiliary cooling water system
- 💧 DM water storage tank



160 MW Ramgarh Power Project, Rajasthan



Cooling Water System for Neyveli Thermal Power Plant, Tamil Nadu



Bakreshwar Thermal Power Plant, West Bengal



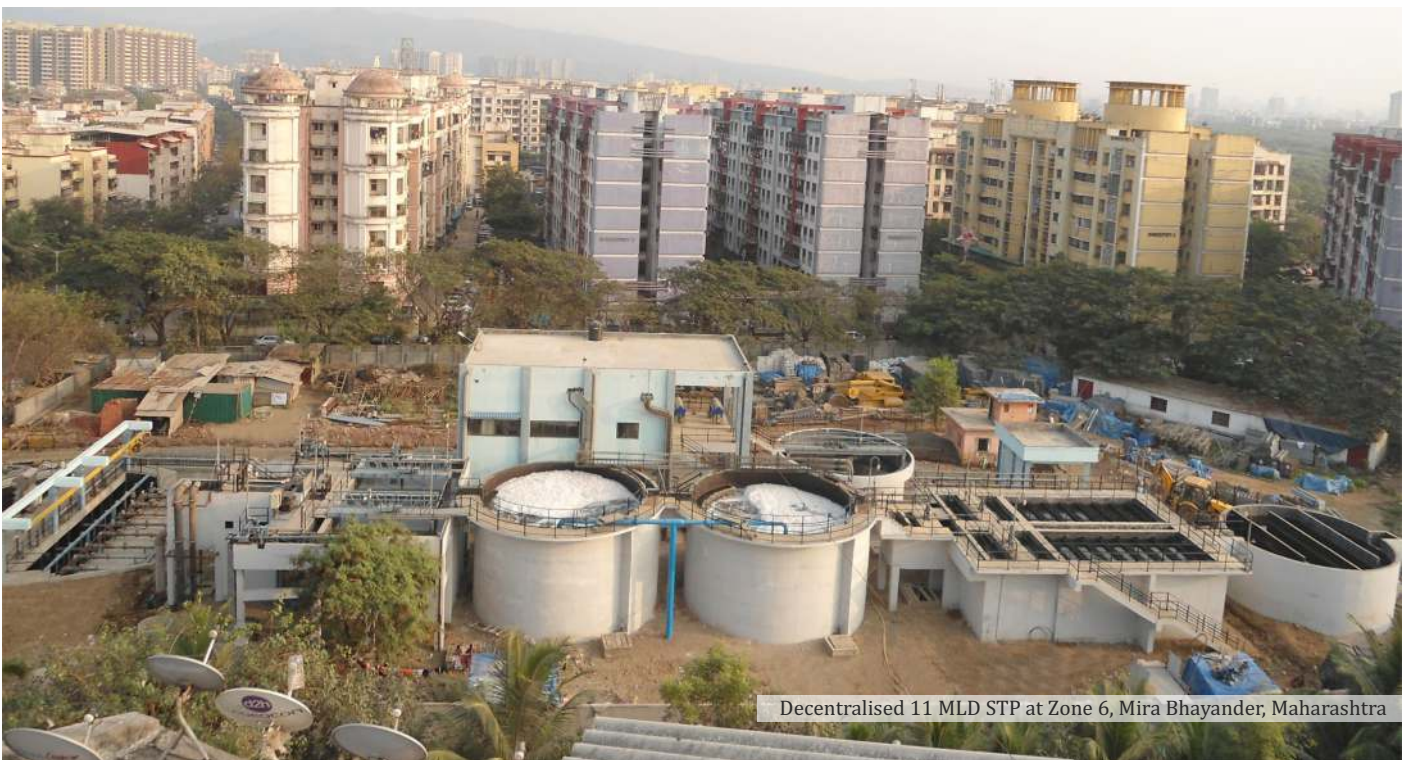
Simhadri Super Thermal Power Plant, Andhra Pradesh



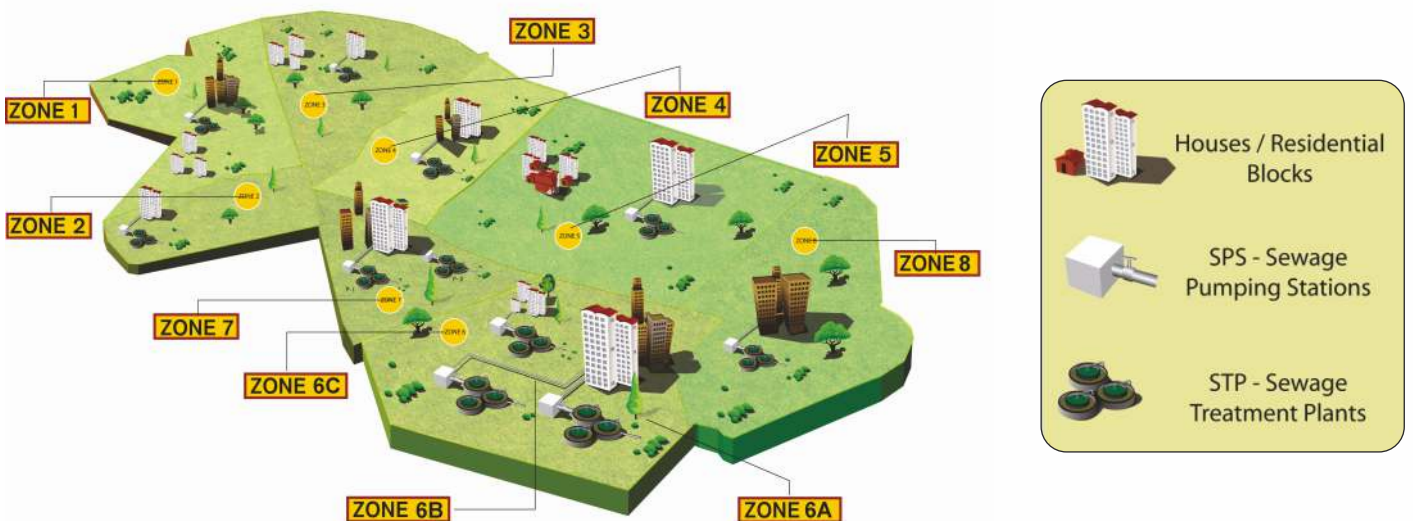
Santhaldih Thermal Power Plant, West Bengal

Integrated Sewerage System – Mira Bhayander

With the urbanization and rapid population growth in cities, integrated and decentralized sewerage network has become essential for wastewater treatment. SPML has proven capabilities in design and execution of Integrated Sewerage Systems in large cities and towns of India. The Mira Bhayander project is designed completely as a decentralized system having separate collection and treatment facilities in 10 zones across Mira Bahayander. This is India's largest and first comprehensive underground sewerage system with 113 kilometres of sewer lines, 10 pumping stations, 10 sewage treatment plants of various capacities ranging from 7 MLD to 17 MLD with total capacity of 115 MLD having advanced MBBR treatment technology with high level of treatment efficiency. This integrated sewerage system is fully automated with zero manual intervention and can be easily expanded, retrofitted for capacity enhancement. This system implies closure of existing septic tanks and drainage through storm water drains thus improving overall hygiene and living standards.



Decentralised 11 MLD STP at Zone 6, Mira Bhayander, Maharashtra



Sewerage Network Plan, Mira Bhayander

Integrated Sewerage System for Clean Ganga - Kanpur

Kanpur, the heavily industrialised city of Uttar Pradesh having tanneries and other polluting industries poses the biggest challenge of the gigantic task of clean Ganga mission. The main drain of the city discharges the highest amount of untreated sewage (@138 MLD) into the river and passes through heavily populated and congested areas. The strategy document of the National Mission for Clean Ganga identifies the Kanpur-Varanasi leg as the “most critical stretch” having engineering complexities. As part of the clean Ganga mission, Kanpur Sewerage System is strategically planned and executed to treat sewage and effluent of the current population of more than 3 million people and numerous industries with inbuilt capacity to handle the future demands for next 30 years. The project involves design and construction of sewerage network and sewage treatment plant on turnkey basis with facility of bio-gas generation from sludge treatment that will be utilized by 3 biogas engines to generate 1140 Kw power to fulfill the partial power requirement of the plant. The treatment plant is designed to treat the sewage to meet the prescribed standards to make water suitable for discharging into disposal point.

Parameter	BOD	Suspended Solids	pH	Fecal Coliform
Concentration	<20 mg/L	<30 mg/L	7.0-8.0	<500 MPN/100 ml

Scope of Services

Sewage Treatment Plant: 42 MLD based on activated sludge process

Sewerage Network: 130 km of RCC pipes of 150-1800 mm diameter by open cut and trenchless method; 1.5 kilometre rising main with DI K9 pipe of 600 & 900 mm diameter

Sewage Pumping Station: 14 MLD, 14 MLD and 42 MLD

Bio-gas Holder: 2 units with 1350 M³ combined capacity

Power Generation: 1140 kw



Sewer Rehabilitation & Trenchless Project

SPML has executed a number of sewer pipe rehabilitation projects with Cured-in-place-pipe (CIPP), a trenchless rehabilitation technology providing joint less, seamless, pipe-within-a-pipe that protects against spills and breaks, used for the first time in India. CIPP also reduces maintenance costs over the life time of pipeline due to its smooth interior that is abrasion resistant and without any joints and seams that may separate over time.

SPML has also executed trenchless pipe laying without making open cut excavation. It has achieved a degree of importance in utilities especially for projects beneath railway tracks, waterways or roads as it is faster, causes no impact on residents & traffic and eliminates construction noise.

Advantages

- 💧 Faster, affordable, reliable & non-disruptive solutions for sewer pipe rehabilitation
- 💧 Significantly reduces infiltration of water through cracks, holes & joint failures
- 💧 Restores structural integrity to damaged sewer pipes
- 💧 Absence of joints or seams increases flow capacity
- 💧 Lengthens the life of existing pipelines by almost 100 years

Sewer Rehabilitation Projects using CIPP Technique

Project	Client	Pipe Diameter	Length
Jail Road	Delhi Jal Board	1422 mm - 1828 mm	6.7 kms
West Delhi	Delhi Jal Board	1676 mm	7 kms
Kalkaji	Delhi Jal Board	600 mm - 1350 mm	3.6 kms
Ashoka Road	New Delhi Municipal Council	940 mm - 1370 mm	1.3 kms
Jangpura	Delhi Metro Rail Corporation	1600 mm	800 m



Urban Water Supply & Distribution Management

SPML is executing a number of urban water supply and distribution management projects in several cities of India. It helps ULBs and Municipalities to provide safe and reliable water supply and services to their residents.

Scope of Services

Metering

SPML follows modern metering techniques with AMR meters using AMI technology to help the utilities in NRW management, accurate billing, online reading, data analytics, and optimized network management.

Non-revenue water reduction

By employing cost effective maintenance and management plan for pipeline and assets, SPML identifies and eliminates several causes such as leaks, unauthorise supply or metering inaccuracies that lead to non-revenue water.

Water source development & transmission networks

SPML is capable of developing new water sources and the associated transmission systems for augmentation of existing water supply in urban and rural areas by combining the in-house technical, financial and legal capabilities to structure bankable projects.

Asset management

SPML maintains the performance of the drinking water network, quality of distributed water, and effectively manage, protect & preserve the water assets.

Performance assessments

SPML conducts performance analysis of water utilities and setting up tariffs. Strategies for monitoring and targeting inefficiencies help in improving the overall efficiency of service deliveries.

Water utility management

SPML optimizes systems to reduce costs, avoid regulatory compliance issues to maximize utility's value & contribution to the community.

Reuse projects

SPML can carry out investments in production of potable/industrial water supply from water reuse projects.

Water conveyance

SPML can deliver potable water through a dedicated fleet of tankers in localities where no piped water connection is available or areas that suffer from short supply of water due to breakdowns/outages.

Modern technology usage

SPML uses Integrated Management Information Systems including SCADA that helps in better customer management, effectively manage water distribution resulting in increased efficiency of the utilities.

24X7 City Water Distribution Project

City	State	Population	House Service Connections	Pipeline (Kms)
Pune	Maharashtra	32,00,000	1,00,000	330
Delhi-Malviya Nagar	Delhi	4,00,000	42,000	231
Delhi- Mehrauli-Vasant Vihar	Delhi	3,50,000	42,000	90
Bellary	Karnataka	4,10,000	70,000	730
Raichur	Karnataka	2,40,000	42,000	528
Hospet	Karnataka	2,06,000	43,000	330
Gadag-Betageri	Karnataka	1,75,000	42,000	454
Haveri	Karnataka	80,000	17,000	202
Sindhanur	Karnataka	75,000	12,000	210

Water Meters

With the growing urbanization, water utilities across the world are under enormous pressure to make their operations smart and cost effective to cater the rising demand of water supply and consumption levels. Since 1981, SPML is leveraging internal and global proven technological expertise and vast experience in managing scarce water resources and water measurement system. With more than 500,000 smart water meters installed in various cities, SPML is proud to be part of urban water management in municipalities and water utilities across India.

The smart metering, AMR (automatic meter reading) meters is an essential part of the smart city solutions. This technology provides automatic collection of consumption, diagnostic and status data, and transferring that data to a central database for analysing, troubleshooting, timely decision making and accurate billing. It saves service providers the expense of periodic trips to each physical location to read a meter. This timely information coupled with analysis can help both utility providers and customers better control on water consumption.

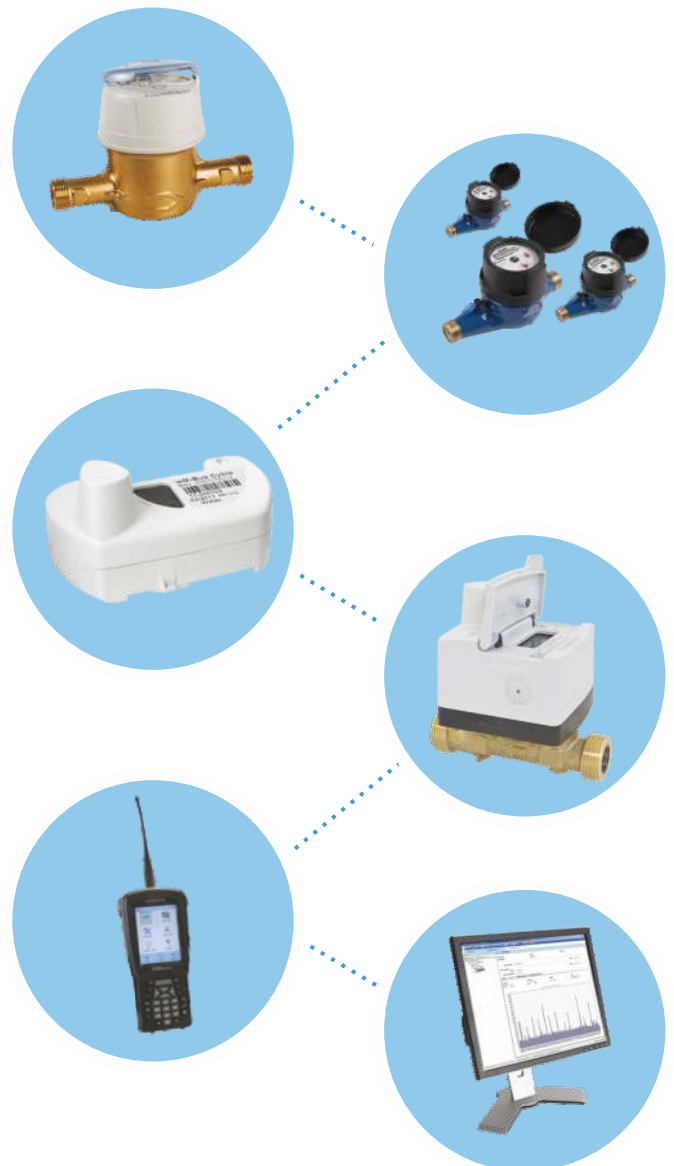
The AMR meters provide direct reading system that could help solve meter reading problems and increase efficiency, enabling more meters to be read in the same amount of time with greater accuracy. AMR technologies include handheld, mobile and network technologies based on telephony platforms (wired and wireless), and radio frequency (RF).

Smart water management system is comprised of 3 main components:

Metering: Accurate, long life water meters; the revolutionary ultrasonic bulk meters have no moving parts and has zero maintenance. The meters automatically and continuously transmit precise water flow data with no need to physically access or visually inspect the meters.

Data Collection: The fixed cellular network receives the data transmitted from water meters and relays it to central control centre on 24x7x365 basis.

Data Management: The streams of big data converge into and are analysed by SPML's data management system, SPML Aqua, which provides real time, location-specific alerts for wastage and non-revenue water situations such as water leakage and unauthorized usage. SPML Aqua analyse data to generate a wide range of statistical reports and graphs that easily integrate with most billing systems.



AMI Project

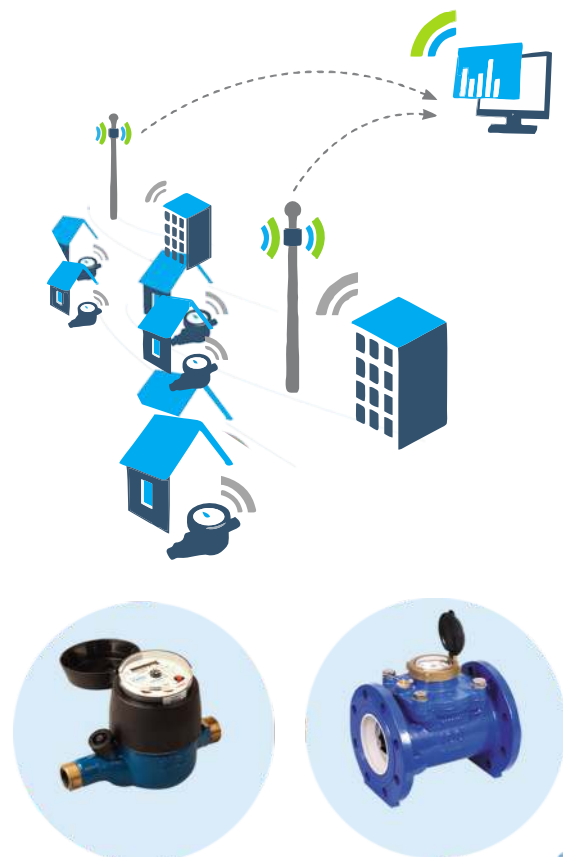
SPML in collaboration with ARAD Technologies, Israel have executed a pioneer project in India, AMI (advanced metering infrastructure) project in Delhi as part of smart city infrastructures. AMI is an integrated system of smart meters, communication networks and data management system that enables two-way communication between utilities and customers. Customer systems include in-home display, home area network, water management system, and other customer related solutions that enables utilities in smart management of water supply and distribution network.

AMI Benefits

- Daily data and readings from all meters to manage many critical challenges and reduce operating costs, identify performance issues, improve customer service and better prioritize infrastructure investments
- No need for physical meter reading, walk by reading eliminated; Utilities with very high meter reading costs can see a payback relatively quickly
- More efficient use of manpower
- Daily indication of water consumption for the inlet and outlet of the main reservoir
- Daily alerts for leaks, unauthorised consumption and all other major sources of water loss etc. by the strategic use of the data that AMI generates
- Substantial reduction in NRW
- Better asset management
- Optional use of Mobile App for end users
- Improved services - smart metering improves relationship between water utilities and the customers. Reduce customer complaints at call center by eliminating metering and billing related issues
- Demand side management - reliable data reduces inaccurate forecasts and predictions, uncertainty surrounding future demand and supply availability
- Help in water conservation to consumers and reduce monthly bill after doing online monitoring of their usage pattern

AMI Features

- Advanced meters are capable of interval usage reads
- Measurement and sensing devices that collect data on water flow, pressure, quality, potential leaks
- Real-time communication channels for two-way communication between smart devices and the control centre
- Data management software to process and aggregate data
- Real-time data analytics and modeling software
- Automation and control tools to enable water utilities to conduct network management tasks remotely and automatically



Non-Revenue Water (NRW) Management - Bangalore

It is estimated that average NRW are above 40% of water supply. Reduction in NRW to acceptable level is vital for the operational and financial sustainability of water utilities across the country. NRW can be reduced through appropriate technical and managerial actions, and it is essential not just from a financial stand point, but also for economic and environmental benefits. SPML is working towards comprehensive solutions for urban water efficiency and water loss management by implementing highly efficient technological application to build up capacities and improve water networks.

SPML helped in significantly reducing non-revenue water under UFW Project in Bangalore by using innovative technology of helium leak detection to accurately identify and locate hidden leaks in large and small pipes. The Non-revenue water (NRW) reduced significantly from 56% to 27% thus saving about 40 million litres drinking water per day. The water saved from the project will be used to provide drinking water facilities to 110 villages and newly developed colonies.

Scope of Services

- 💧 Detailed survey and measurement of apparent losses
- 💧 Plan, design and implement NRW management
- 💧 Verification of assets
- 💧 Network modeling
- 💧 Web based GIS system
- 💧 Establishing DMA for pressure control, water quality and continuous supply
- 💧 Electronic flow meters with GSM/GPRS communication
- 💧 Monitoring performance of NRW management
- 💧 Operation & maintenance

Benefits of reducing NRW

- 💧 Save drinking water, available to cater unsatisfied demands
- 💧 Lower contamination resulting from burst and outdated pipes, better water quality
- 💧 Extend the life span of existing infrastructure
- 💧 Reduced illegal connections, thereby creating greater fairness between users
- 💧 More efficient customer service
- 💧 Revenue increases and operational cost decreases, water utilities have more cash flow for infrastructure development
- 💧 New business opportunities creates more jobs
- 💧 Water abundance improves quality of life



Mechanical joint in supply pipeline



Split collar to repair barrel crack



Damaged supply line



SS clamp for DI barrel pipe

SPML Aqua – Integrated Management Information System

SPML has indigenously developed SPML Aqua, a powerful integrated management information system designed to meet day-to-day operations of water distribution utilities. Developed on robust technologies, the system seamlessly manages the entire gamut of services such as Billing and CIS, Finance Management, Asset Management, Operations & Maintenance, GIS, SCADA, Network Management and Demand Management. SPML Aqua is the only Enterprise Solution for utilities that also has an inbuilt CRM, Human Resource and Revenue Management System.

It connects the entire organization with customers, suppliers, partners, contractors and employees. The system improves the efficiency of all operations and eventually enables the water distribution utilities to take decisions on real-time data available.

Finance Management

- 💧 General Ledger
- 💧 Accounts Payable
- 💧 Accounts Receivable
- 💧 Bank Management
- 💧 Asset Accounting

Billing

- 💧 Billing Engine
- 💧 Tariff Management
- 💧 Rules Engine
- 💧 Printing Engine
- 💧 Offline Data Management

Customer Information System

- 💧 Commercial Database
- 💧 Customer Service
- 💧 Consumer Portal
- 💧 Complaint Management
- 💧 Consumer Contact Service Centre
- 💧 Collection Centre

Demand Management

- 💧 Town Planning
- 💧 NRW Analysis
- 💧 Demand Analysis & Forecasting
- 💧 Capital Plan Asset Management
- 💧 Asset Creation
- 💧 Asset Movement & Tracking
- 💧 Depreciation Models

Operation & Maintenance

- 💧 Preventive Maintenance
- 💧 Breakdown Maintenance

GIS & Network Analysis

- 💧 Network Analysis for Water & Sewer
- 💧 Network Designing
- 💧 Simulation
- 💧 Schematics
- 💧 Digital Terrain Modelling

Material Management

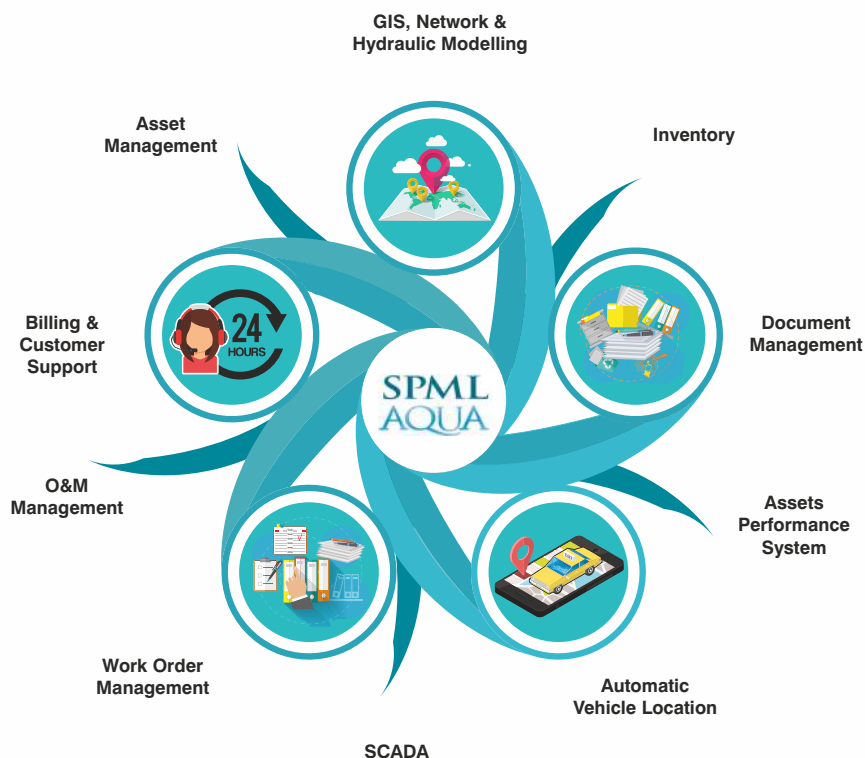
- 💧 Spares Master
- 💧 Spares Procurement, Receipt & Issue

Human Resource Management

- (Employee Framework)
- 💧 Employee Master
 - 💧 Organization Structure
 - 💧 Roles & Responsibilities
 - 💧 Employee Skills

Business Intelligence

- 💧 MIS Reports
- 💧 Role Based Dashboard
- 💧 Analysis



Operation & Maintenance

SPML undertakes operational management within the framework of service contracts. The long term association and trust with the client comes through implementation of cost effective operation & maintenance (O&M) activities, which is carried out after the project is handed over. In the long-term, this results in considerable cost advantages for the respective owners.

Extensive expertise and recognized competence in the area of water-related operational management has led to a large number of client base to opt for SPML's full service capabilities. During the complete plant life cycle, SPML's services contribute to the optimum use of resources with long term sustainability by providing operative management of the highest standard.

Scope of Services

- 💧 Synergic operational plan in line with client needs
- 💧 Asset management through predictive & preventive maintenance
- 💧 Ensuring continuous safe operations with full time deployment of professional team
- 💧 System improvements through reliability analysis, operational audit, training of personnel & technological innovations
- 💧 Process quality control and adherence to norms
- 💧 Optimization of material resources while ensuring quality performance
- 💧 Coordination with OEM/supplier and external support services for trouble free operations
- 💧 Compliance to safety & environmental norms
- 💧 Site performance indexing through MIS/documentation & operational logging

O & M Contracts (indicative list)

Project	Client	Scope of work	Period of O&M
Pokhran-Falsoond-Balotra-Siwana Lift Project, Rajasthan	PHED, Jodhpur	O&M of 392 kms pipeline, 3 nos of WTPs, 12 pumping stations with combined capacity of 40,000 M ³ /hr with 9350 kw, 2 raw water and 3 clear water reservoirs, substations with PLC & SCADA systems	10 years
Water Distribution Network, Nagaur, Rajasthan	PHED, Ajmer	O&M of 1290 kms of pipeline, water distribution network, 55 elevated service reservoirs with PLC & SCADA systems	10 years
Water Supply Improvement Scheme, Mehrauli & Vasant Vihar (and adjoining areas), Delhi	Delhi Jal Board, Delhi	O&M of distribution network, underground reservoirs, pumping stations, service connections to households, 42000 of water meters and 90 kms of pipeline	10 years
53.5 MGD Sewage Pumping Station, Preet Vihar, Delhi	Delhi Jal Board, Delhi	O&M of 53.5 MGD pumping station including 7.2 km of HDPE pipeline	10 years
RGLC Water Supply Scheme, Rajasthan	PHED, RGLC Circle-1, Jodhpur	O&M of Rajiv Gandhi Lift Canal (Phase I & II) Water Supply Project including 61 km pipeline, 175 km canal and surge protection device	10 years
Fatehpur-Laxmangarh Water Supply Scheme, Rajasthan	PHED, Jaipur	O&M of 160 MLD water treatment plant, 94 km pipeline, raw water and clear water pumping stations using PLC and SCADA	10 years
Water Supply Scheme Saurashtra-Kutch, Gujarat	Gujarat Water Infrastructure Limited (GWIL), Gandhinagar	O&M of 76 kms of pipeline, 2 pumping stations with combined capacity of 5720 M ³ /hr with 2200 kw with PLC and SCADA systems for water supply from Dhanki Dam to Lambdi and Dudheeraj	5 years
Bisalpur Jaipur Water Supply Project, Rajasthan	PHED, Jaipur	O&M of 146 kms of pipeline, 71 distribution centre with flow meter, master control system, 6 pumping stations with PLC and SCADA	5 years
Urban Water Supply Projects- Bellary, Gadag, Haveri, Hospet, Raichur, Sindhanur	Karnataka Urban Infrastructure Development and Finance Corporation	O&M of entire water supply system of all 6 cities with house service connections, metering, billing and collection with 24x7 consumer service centre	5 years

Quality, Health, Safety & Environment

SPML strives towards excellence in all operations through compliance with world-class quality systems in our specific fields of activities, ensuring continuous improvement in our quality management system.

SPML's quality management system is certified by LMS Certification Limited, UK with ISO 9001:2015.

SPML recognizes that the management of health, safety and environmental matters is the prime responsibility of the company and will ensure that there are adequate resources available (both human and financial) to implement the policy. The management also actively promotes and encourages the cooperation, involvement and participation of all employees, contractors, suppliers and other stakeholders.



Awards & Rocognitions

- ▶ ASSOCHAM Water Management Excellence Award 2019 as 'Best Water Management Company' of the year
- ▶ CIA World Construction & Infra Award 2019 as Best Company in Water Management - EPIC Media
- ▶ Smart Water & Waste World Award 2019 for Decentralized Sewerage System in Mira Bhayander, Maharashtra
- ▶ The Economic Times Most Promising Business Leaders of Asia 2018 Award to SPML Infra Chairman, Mr. Subhash Sethi
- ▶ Award for Outstanding Contribution in Completion of SAUBHAGYA Scheme in Bihar - by Hon'ble Chief Minister of Bihar
- ▶ Zee Business Dare to Dream Awards 2018 for Company of the year – Infrastructure
- ▶ Certificate of Appreciation for Outstanding Performance in SAUBHAGYA Scheme in Patna District, Bihar
- ▶ ET Now-Water Leadership Awards 2018 for Excellence in Water & Wastewater Management – World CSR Day
- ▶ 50 Most Impactful Leaders in Water & Water Management Awards 2018 to SPML Infra Chairman – World CSR Day
- ▶ Best Employer Brand Awards 2017 - World HRD Congress
- ▶ India's Most Ethical Companies Award 2017 for Infrastructure Development – Energy & Water
- ▶ Aqua Foundation Excellence Award 2017 to SPML Infra Chairman for his Valuable Contribution in Infrastructure Development in India
- ▶ Construction Times Award 2017 for Best Executed Technology used for Water Management Project
- ▶ Construction Week India Award 2017 to SPML Infra Chairman as Infrastructure Person of the year
- ▶ CIA World Builders & Infra Awards 2017 for Best Water Management Company of the year – EPIC Media Group
- ▶ Technology Champion – Smart City Award 2017 for IMIS – Cyber Media Group
- ▶ Data Centre Green DC Initiative Award 2017 – UBS Transformance





SAVE WATER SAVE EARTH



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