



### SPML INFRA LIMITED

SPML Infra is a leading infrastructure development company of India. A public listed ISO certified company, it has executed more than 600 projects and created significant value with the provision of drinking water, improved sewerage facilities, better municipal waste management, building roads and highways and lighting up homes over the last three decades. SPML Infra has become the only Indian company to be featured into the World's Top 40 Private Water Management Companies as per the survey by Global Water Intelligence, London.

### PROJECT AT A GLANCE:

SPML Infra has completed an important Irrigation Project in Gujarat called Saurashtra Narmada Avtran Irrigation (SAUNI Yojana) launched by Shri Narendra Modi ji in September 2012 during his tenure as the Chief Minister of Gujarat. The project envisage to divert one million acre feet (1 MAF) water of Narmada Dam to Saurashtra to distribute it to 115 Reservoirs through a total of 1115 Kms four link pipelines to irrigate 1.8 million hectare of land, mainly in Saurashtra, Kutch and north Gujarat, benefiting millions of farmers. It will also supply irrigation water to 2.46 lakh hectares in drought-prone Barmer and Jalore districts in Rajasthan and some parts of Maharashtra apart from generating hydropower.

This project has solved the water scarcity of 132 towns and 11,456 villages in the Saurashtra, Kutch, North Gujarat, Panchmahal and Ahmedabad regions for drinking and irrigation. About 1,650 MLD of water is supplied to 39 million people across these regions and with the good crop; it is boosting the economy of the state.



Hon'ble Prime Minister Shri Narendra Modi ji along with Shri Vijay Rupani, Hon'ble Chief Minister of Gujarat inaugurating SAUNI Yojana

### Project background:

The state of Gujarat was facing severe water scarcity and several regions remain arid and receive scarce rainfall, thus facing frequent droughts. People of Saurashtra and Kutch regions were facing acute shortage of water for drinking and irrigation and were forced to migrate to other regions. Almost 70 per cent of dams, reservoirs and other water bodies of this region had become dry and large area of the Kutch-Suarashtra region was dependent on water supply through tankers. In a bid to mitigate this problem, the Gujarat government undertook the development of a state water supply grid, Swarnim Gujarat Saurashtra-Kutch Water Grid Project. It was developed by Gujarat Water Infrastructure Limited (GWIL) to augment water supply to these areas in the state.

### Project Challenges:

All EPC projects are highly schedule driven where phases are overlapped to complete the project as early as possible. Sometime these challenges lead to cost overrun and schedule delay. SPML has faced some challenges while executing the projects:

- The huge size of Pipe laying was a big challenge in rocky terrains; SPML used rock breakers and sophisticated machines for digging the trench
- Transportation of heavy pipes (each 12 mtrs pipe weighted 11.5 metric tonnes) was challenging; SPML used specially made 18 wheel low bed trailers for pipe transportation
- Planned and created mechanism to enhance the access to site for safe laying in diverse soil and climatic conditions
- Jointing by welding of each large diameter pipes were a herculean task and after jointing each pipe were again coated with 3 layer polyethylene
- Enormous task to place heavy pumping machineries, rotator of all pumps were imported from Germany
- SPML developed expertise in working at very hot, inhospitable conditions to complete the project

**Client:** Bhavnagar Irrigation Project Division, Gujarat

Cost of Project : INR 5940 Million

### Scope Of Work:

#### Pumping Stations:

- Two set of Pumps with 13,475 M<sup>3</sup>/hr with 30 meters head
- Vertical Turbine 10 Pumps (8 working + 2 standby)
- Motor with 1500 KW horsepower at 594 RPM speed
- 1 set of HT Panel

#### Pipeline:

- Length: 40.95 kms MS Pipeline of 3000 mm diameter with 17.5 mm thickness
- Coating: Outside 3 LPE minimum 3.7 mm coating confirming to DIN 30670, Inside 406 micron thick solvent free food grade epoxy coating and heat shrink sleeve at welding joints
- Pipe welding: 32,61,824 cm
- No of bends: 26 Nos.
- No of valves: 24 Nos.

#### Electrical System:

- 66 Kv Switch Yard
- 10 MVA Transformer with 6.6 Kv Voltage

#### Civil Work:

- Pumping Station: 70.45 M x 13 M x 14.5 M (L, W, H)
- Sump: 60 M x 50 M x 7.5 M Depth
- MCC Building: 34 M x 23 M x 6.5 M (L, W, H)
- Switch Yard: 65 M x 35 M
- D.G Room: 8.46 M x 4.96 M x 5.465 M (L, W, H)
- Staff Qtr: 6.15 M x 7.35 M x 3 M (L, W, H)
- Security Cabin: 2.46 M x 2.46 M x 3 M (L, W, H)
- Total concreting: 22,100 Cum
- Total excavation: 16,77,080 Cum

- SCADA System and allied works
- 10 years of Operation & Maintenance

