



*Solutions for  
a cleaner environment...*



**Enviro Control Associates (I) Pvt. Ltd.**





**ENVIRO CONTROL ASSOCIATES (I) PVT. LTD.** is one of the leading companies in India in the field of Environmental Engineering focusing on the treatment of Water, Municipal Sewage & Industrial Effluents. The Company also offers Solutions for Municipal Solid Waste Management, Tertiary Treatment with Water Reuse & Bio-gas based Energy Generation. ENVIRO employs a highly-qualified work force over 400 people and has state-of-the-art facilities, latest equipment and an innovation Research & Development activities.

ENVIRO was established in 1979 and has designed, engineered and executed more than 350 plants of Water, Domestic Sewage and Industrial Effluent Treatment. It has provided Consultancy Services to numerous Industries in environmental engineering solutions. ENVIRO's engineering expertise, plant execution knowledge and in-depth treatment process experience helps it provide clients with the highest quality treatment and standards.

ENVIRO's client list is extensive and includes many national and multi-national industries as well as Municipal Corporations, State Water Supply and Sewerage Boards, Refineries, Petrochemical Plants, Pulp and Paper, Chemical, Dyeing and Printing, Textiles, Pharmaceuticals, Sugar and Paints Industries.

ENVIRO has worked with leading consultants like Engineers India Limited, Tata Consulting Engineers Limited, Jacob H & G, MECON Limited, MWH India Private Limited, Projects & Development India Limited, Biothane System International (The Netherlands), Lettinga Associates Foundation (LeAF, The Netherlands), Nippon Jogesuido Sekkei Company Limited (Japan), Mott MacDonald Limited (U.K), to name a few.

## ENVIRO offers a range of specialized engineering services

- Water Treatment
- Sewage Treatment
- Industrial Effluent Treatment
- Tertiary Treatment Plants for Waste water Reuse and Recycling
- Bio-Gas based Captive Power Generation Plants
- Operation and Maintenance of Treatment Plants
- Solid and Hazardous Waste Engineering



**40 MLD CETP at Dahej for Gujarat Industrial Development Corporation**

## Major Milestone Achievements:

- The numbers, capacities, use of varied technologies, quality and timely completion of more than 400 Treatment Plants places us amongst one of the Global Leaders in the field of Environmental Engineering
- Enviro has crafted solid reputation of providing innovative sustainable solutions contributing towards cleaner environment
- World's First Largest 245 MLD Capacity Sewage Treatment Plant based on Single Stage Biological Sequencing Batch Reactor (SBR) with BNR for Indore Municipal Corporation.
- India's First Largest 180 MLD Capacity Sewage Treatment Plant with Diffused Aeration and PLC-SCADA System at Pirana for Ahmedabad Municipal Corporation.
- India's First Largest 40 MLD (Nett Output) Tertiary Sewage Treatment Plant on Ultra Filtration(UF) & Reverse Osmosis (RO) generating Industrial Grade Water at Bamroli for Surat Municipal Corporation and in operation since August 2014.
- India's First largest 100 MLD Capacity Sewage Treatment Plant with Primary Clarifiers followed by SBR with 160 MLD Advanced Sludge Treatment including Power Generation at Hebbal for BWSSB, Bengaluru.
- First to install Tertiary Treatment Plant for reuse of treated sewage for Industrial purpose for GSFC, Vadodara in 1989.
- 363 MLD capacity Auto-Remote Operation Water Treatment Plant with Sludge Recycle for Indore Municipal Corporation.
- First to provide Bio Gas based Electricity Generation Plant in India from 60 MLD capacity Sewage Treatment Plant at Koyambedu for Chennai Water Supply & Sewerage Board.
- Only Indian Company to have Design and Executed maximum numbers of highest capacity @50 numbers (40 MLD to 245 MLD) of Water, Sewage and Effluent Treatment Plants.
- Executed Treatment Plants for critical industrial effluents like Petrochemicals, Refineries, Fertilizers, Pharmaceuticals, Paints, Heavy Metals, Textiles, Sugar, Pulp and Papers, Chemicals, Dairy including CETPs ranging from 15 to 60 MLD.
- Treats more than @5000 Million Liters of Water and Waste water everyday across India
- Pioneer in Waste to Energy Generation - Generating @20 Million Units (KWH) per annum Electricity through Gas Engines from Biogas produced from Sewage Treatment plants across India
- Consultancy Services provided to more than 250 industries for Pollution Control System



**40 MLD Capacity STP based on BNR System at Raja Canal for Bangalore Water Supply and Sewerage Board**

### Sewage Treatment Plants executed in India on Different Technologies:

- Aerated Lagoon
- Extended Aeration (EA)
- Trickling (Bio) Filter
- Upflow Anaerobic Sludge Bed Reactor (UASB) + EA
- Moving Bed Bio-film Reactor (MBBR)
- UASB + Facultative Aerated Lagoon + Polishing Pond
- Conventional Activated Sludge Process (CASP)
- Sequencing Batch Reactor (SBR) with Biological Nutrient Removal (BNR)
- Integrated Fixed Film Activated Sludge Process (IFAS)
- UASB + MBBR
- Advanced  $A_2O$  Process
- UASB + SBR
- Oxidation Ditch
- MBR (Membrane Bioreactor)
- UASB + IFAS + EA
- Primary Clarification + SBR + Advance Filtration
- Chemical Treatment + EA
- EA + Sand Filtration
- SBR + Sand / Disc Filtration
- EA + Chemical Treatment + Softening + Activated Carbon Filtration
- SBR + Ultra Filtration (UF)
- Tertiary Sewage Treatment Plant with Ultra Filtration + Reverse Osmosis

# Water Treatment Plants (WTPs)

## Technologies offered by ENVIRO:

- Conventional Clarifloculators
- Reactor Clarifiers
- Sludge Blanket Lamella Clarifiers
- High Rate Rapid Gravity Sand Filters

## List of major projects :

- 212 MLD at Kosad for Surat Municipal Corporation, Surat
- 130 MLD at Dindoli for Surat Municipal Corporation, Surat
- 363 MLD at Baklai, Indore for Indore Municipal Corporation
- 90MLD each for Surat Municipal Corporation, at Kosad and Simada, Surat
- 125MLD for Ahmedabad Municipal Corporation, Jaspur
- 470MLD(Phase I, II, III) for Surat Municipal Corporation, Sarthana, Surat
- 438 MLD(Phase I, II, III) for Surat Municipal Corporation, Katargam, Surat
- 200MLD at Jahangirabad for Surat Municipal Corporation
- 80MLD(WTP-III) for Reliance Industries Ltd, Hazira, Surat
- 78MLD for Surat Municipal Corporation, Dindoli, Surat
- 50MLD for Vadodara Municipal Corporation, Nimeta
- 40MLD for Goa Municipal Corporation, Curti- Ponda
- 40MLD at Podacem for Goa Municipal Corporation
- 26.4 MLD for National Fertilizers, Guna, Madhya Pradesh
- 28.8 MLD for Maharashtra State Electricity Board, Parli
- 23.3 MLD for Nashik Municipal Corporation
- 19.2 MLD for Indian Farmer Fertilizer Co-op Ltd., Phulpur, Uttar Pradesh



**40 MLD WTP, Curti-Ponda , PWD, Goa**



**363 MLD, WTP at Baklai for Indore Municipal Corporation**

# Sewage Treatment Plants (STPs)

## Technologies offered by ENVIRO:

- Advanced A<sub>2</sub>O Process for Biological Nutrient Removal (BNR)
- Conventional Activated Sludge Process (CASP)
- Conventional Extended Aeration System (EA)
- Up flow Anaerobic Sludge Bed Reactor (UASB)
- Sequencing Batch Reactor (SBR)
- Integrated Fixed Film Activated Sludge Process (IFAS)
- Moving Bed Biofilm Reactor (MBBR)
- Bio-Tower System (BT)
- Membrane Bioreactor (MBR)
- Advanced Oxidation Ditch



**SBR Unit at 40 MLD STP at Kharadi, Pune**

## List of major projects :

- 200 MLD for Surat Municipal Corporation, Bhesan
- 167 MLD for Surat Municipal Corporation, Dindoli
- 100 MLD for Bangalore Water Supply & Sewerage Board at Hebbal, Bengaluru
- 100 MLD for Surat Municipal Corporation, Bamroli
- 122 MLD for Surat Municipal Corporation, Anjana
- 245 MLD for Indore Municipal Corporation, Indore
- 180 MLD for Ahmedabad Municipal Corporation, Pirana
- 140 MLD (Phase I, II) for Surat Municipal Corporation, Karanj
- 40 MLD for Bangalore Water Supply & Sewerage Board at Raja Canal, Bengaluru
- 155 MLD (Phase I, II) for Surat Municipal Corporation, Singapore
- 78 MLD at Kabithkhedi for Indore Municipal Corporation
- 60 MLD for Chennai Metropolitan Water Supply & Sewerage Board, Koyambedu
- 130 MLD for Pune Municipal Corporation, Bahiroba
- 115 MLD for Pune Municipal Corporation, Dr. Naidu Hospital, Pune
- 45 MLD for GMDA, Mohali, Chandigarh
- 43 MLD for Vadodara Municipal Corporation, Atladra
- 40 MLD for Pune Municipal Corporation, Kharadi



**84 MLD Two Stage Biological (UASB + MBBR) STP at Variav for Surat Municipal Corporation**



**MBBR Unit at 84 MLD STP, Variav for Surat Municipal Corporation**

## Tertiary Treatment Plants (TTPs)

The exponential growth for water requirement and limited source of fresh water has necessitated re-use of water in industry and in cities (non-drinking purposes). Next to water conservation, water recycling is the only significant "new" source of water that can meet domestic, industrial and environmental demands which are increasing on daily basis.

Tertiary treatment processes include:

### CONVENTIONAL PROCESSES

- Deep Bed Multimedia Filter – ENVICO
- Pressure Sand Filters
- Activated Carbon Filters.

### MEMBRANE BASED PROCESSES

- Membrane Bioreactor (MBR)
- Ultra Filtration (UF)
- Reverse Osmosis (RO)

List of major projects :

- 57 MLD (40 MLD Net output) India's First Largest Tertiary Sewage Treatment Plant based on UF-RO Technology, Bamroli, Surat Municipal Corporation
- 40 MLD Tertiary Sewage Treatment Plant based on UF-RO Technology, Dindoli, Surat Municipal Corporation
- 35 MLD Tertiary Sewage Treatment Plant based on UF-RO Technology, Bamroli, Surat Municipal Corporation
- 134 MLD (Phase I, II) for Surat Municipal Corporation, Kosad
- 5 MLD for Gujarat Hira Bourse, Surat with Zero Liquid Discharge
- 53 MLD for Surat Municipal Corporation, Gavier
- 13 MLD for Reliance Industries Ltd, Hazira, Surat
- 4800 m<sup>3</sup>/day for KRIBHCO, Hazira, Surat
- 3240 m<sup>3</sup>/day for Gujarat State Fertilizer Corporation, Vadodara
- 1200 m<sup>3</sup>/hr ETP –III plant, Reliance Hazira, Surat
- 480 m<sup>3</sup>/day for Dept. of Atomic Energy, TIFR, Mumbai

### India's First Largest 57 MLD capacity (40 MLD Net output) Tertiary Sewage Treatment Plant based on UF - RO Technology for Surat Municipal Corporation



**Ultra Filtration System**



**Reverse Osmosis System**

# Industrial Effluent Treatment Plants (ETPs)

## Technologies offered by ENVIRO:

- Oil removal system using DAF system, TPI unit, Belt and Disc Oil Skimmer
- Pre-treatment - Coagulation, Flocculation, Sedimentation & Floatation
- Biological Treatment - Extended Aeration Bio-Towers, MBBR, Sequencing Batch Reactor (SBR)
- Sludge thickening, conditioning and dewatering system
- Heavy Metal & Ammonia Removal System
- Membrane Bioreactor (MBR) Technology



**Effluent Treatment Plant for IFFCO-Aonla**

## List of major projects :

- 40 MLD CETP for Gujarat Industrial Development Corporation, Saykha
- 40 MLD CETP for Gujarat Industrial Development Corporation, Dahej
- 15 MLD CETP for Gujarat Industrial Development Corporation, Sarigam, Vapi
- 62.5 MLD CETP for Palsana Enviro Protection Limited, Palsana, Surat, Gujarat
- 26 (ETP-III) MLD for Reliance Industries Ltd, Hazira, Gujarat
- 21 MLD CETP at Panipat for Haryana Urban Development Authority, Haryana
- 1215 m<sup>3</sup>/hr for Rama Newsprint & Papers Ltd., Barbodhan, Gujarat
- 1000 m<sup>3</sup>/day for Gujarat Chemical Port Terminal Co. Ltd, Dahej Gujarat
- 660 m<sup>3</sup>/hr for Indian Farmers Fertilizers Co-op Ltd., Aonla, UP
- 600 m<sup>3</sup>/hr (ETP-II) for Reliance, Hazira, Gujarat
- 310 m<sup>3</sup>/hr for Madras Refineries, Chennai
- 200 m<sup>3</sup>/hr for Krishak Bharati Co-op Ltd, Hazira, Surat
- 170 m<sup>3</sup>/hr for BPCL, Manmad, Maharashtra



**Bio-Tower Installation for Effluent Treatment Plant, RELIANCE, Hazira**



**Diffused Aeration based Effluent Treatment Plant including Tertiary Treatment for reuse of waste water for Reliance, Hazira**





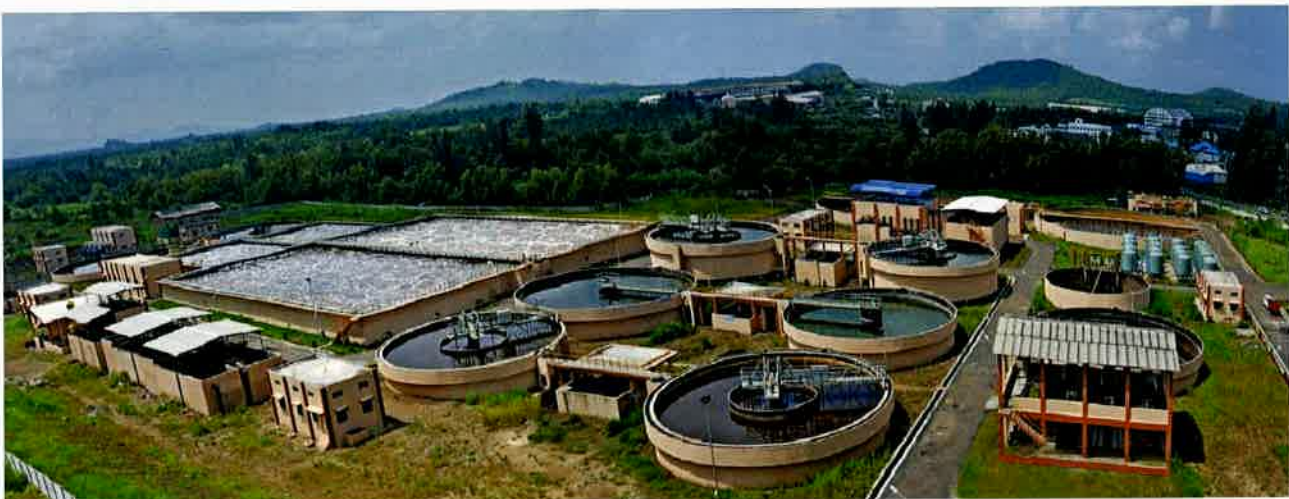
**245 MLD STP for Indore Municipal Corporation,  
World's first Largest Single Stage Biological SBR Based STP**



**180 MLD STP, Pirana, Municipal Corporation, Ahmedabad  
India's First Largest STP with Diffused Aeration and PLC - SCADA System**



**200 MLD WTP at Sarthana for Surat Municipal Corporation**



**15 MLD CETP for Gujarat Industrial Development Corporation, Sarigam , Vapi**

## Waste-to-Energy: Biogas Based Power generation

ENVIRO offers Captive Power Generation plants based on Bio Gas Engine System which can take care of almost all the energy needs of an STP in ideal conditions. Such plants are cost effective and provide clean and renewable energy based on latest technology. ENVIRO designs, builds, operates and maintains such energy generation plants.

### List of major Biogas Based Power plants:

- 600 KWe Capacity for 200 MLD STP at Bhesan for SMC, Surat
- 1 MWe Capacity for 100 MLD STP at Hebbal for BWSSB, Bengaluru
- 625 KWe capacity for 60 MLD STP at Koyambedu for CMWSSB, Chennai
- 600 KWe capacity for 84 MLD STP at Variav for SMC, Surat
- 750 KWe capacity for 66 MLD STP at Dindoli for SMC, Surat
- 635 KWe capacity for 100 MLD STP at Bamroli for SMC, Surat



**600 KWe Capacity Bio Gas Power Plant at 84 MLD STP, Variav for SMC, Surat**

## Research & Development (R&D):

ENVIRO is continuously investing in developmental research in the field of Environmental Engineering to promote technologies for cleaner production.

ENVIRO has financially contributed as an industrial partner to Centre of Relevance and Excellence in Environmental Engineering, Surat launched by Technology information, Forecasting and Assessment Council (TIFAC), Department of Science and Technology, Government of India, New Delhi along with Sarvajanic College of Engineering & Technology, Surat.

Mission was launched by Dr. A.P.J Abdul Kalam, The Chairman, TIFAC and The Principal Adviser to the Govt. of India on October 4, 2000.

The Centre also offers PG Courses, Consultancy, Testing & Monitoring services as well as Research and Training in different field of Environmental Engineering





An ISO 9001:2015  
Reg. No. RQ91/4893  
CERTIFIED COMPANY



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