

Veolia in India

Around the globe, Veolia helps cities and industries to manage, optimize and make the most of their resources. Veolia provides an array of solutions related to water, energy and materials with a focus on waste recovery, to promote the transition towards a circular economy.

Veolia has been present in India for over 15 years.. In India, we partner with Urban Local Bodies (ULBs) to:

- Construct and operate water treatment plants and sewage treatment plants
- Construct and operate desalination plants
- Provide 24/7 pressurized water supply to all citizens (pilot as well as full cities)

We believe in end to end solutions that are structured for the local needs. In this endeavor, we work hand in hand with ULBs to develop or adapt the technology to the needs of the ULBs.

Veolia in India provides safe drinking water to approximately 4.5 million people and produces approximately 1000 MLD of treated water. Veolia in India has been working extensively in smaller towns (<100,000 population), second tier cities (up to 3 million population) as well as in metro cities of India.

In wastewater segment, Veolia in India has constructed one of the most comprehensive and green wastewater treatment plants in India that produces at least 50% of its electricity needs from bio-gas generated within the plant. This plant also has a state-of-the-art sludge management system. We can provide full range of solutions in this segment depending on the needs of the ULBs.

Veolia in India also works with various industries (power, oil & gas, food and beverages etc.) to provide comprehensive solutions in water, waste and energy management (EPC and O&M).

Veolia touches the lives of every citizen irrespective of their social status (rich or poor) through provision of very basic services while striving to protect the environment.



Our Objective

Providing safe and sustainable water for all

Areas of specific expertise:

1. Construction and O&M of water treatment plants with conventional as well as with small foot print technology including construction of intakes
2. Construction and O&M of sewage treatment plants with various technologies
3. Construction and O&M of desalination plants
4. Rehabilitation and manage the water distribution system billing, collection and customer management (7 - 10 years contract)
5. Manage complete water cycle on long term contracts (15 - 25 years)

Our Ethics





**Water distribution improvement project
Hubli-Dharwad, Belgaum and
Gulbarga, Karnataka**

Karnataka Urban Water Sector Improvement Project (KUWASIP)

Summary:

In Karnataka, as in most of the Urban Local Bodies (ULB)'s in India water supply is often intermittent, Citizens have adopted expensive coping methods that include installing underground storage tanks and household filters, while those without an individual water connection have to queue at public fountains.

In 2004, the Municipalities of Belgaum, Gulbarga and Hubli-Dharwad joined hands with Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC) and The World Bank to demonstrate the feasibility of 24/7 water supply. Each of the selected zones represents about 10% of each city's population. The authorities through a tender chose Veolia to implement this challenging project.

Five demozones were chosen (2 in Hubli-Dharwad), 2 in Belgaum and 1 in Gulbarga) to demonstrate:

- Feasibility of 24/7 water supply in Indian context
- Provide individual metered water connection to all customers including slums
- Study the feasibility to scale up for remaining part of these 3 cities

Citizens in five demozones have been receiving 24/7 water supply from the beginning of 2008 onwards. High level of customer/client satisfaction has persuaded the Government of Karnataka to scale up the scheme for the remaining parts of these 3 ULB's as well as many other ULB's.

Over all this project has been pioneering in Indian water industry.

Project Features

- Client: KUIDFC
- Type of Contract: Performance Contract
- Year of Award: 2005
- Year of Completion: On going
- Scope of Work: Rehabilitate the existing system and provide 24X7 water supply
- Population served: 250000



OUR OBJECTIVE:

Demonstrate the feasibility of 24/7 water supply in Indian context



**Water distribution improvement project
Nangloi, Delhi**

Water for all in the north western suburb of Delhi

Summary:

In 2013, Delhi Jal Board (DJB) choose Veolia to run its water supply service for the next 15 years for the Nangloi command area. Through its joint venture company, Nangloi Water Services - Veolia will provide 24/7 water supply to more than one million citizens. The project consists of improvement and revamping of the existing water supply, transmission and distribution network under the command area of Nangloi water treatment plant, on a Public Private Partnership (PPP) basis.

By working hand-in-hand with Delhi Jal Board and a range of stakeholders, Veolia will ensure that water is safe and supplied continuously under positive pressure to the entire project area. The process adapted to this end is through a highly integrated process of withdrawing water from the Bawana canal, treating it to the highest quality standard fit for drinking purposes, piping and storing the treated water and distributing it to every customer household.

The operation and maintenance (O&M) project includes two main phases. During the first phase, Nangloi Water Services will focus on upgrading infrastructure and replacement of assets under the direct supervision and control of the Delhi Jal Board. Bringing in the latest technologies in the field of water treatment and distribution, it will improve the performance of Nangloi's water supply system.

Once the initial phase is over, Nangloi Water Services will supply 24/7 water supply to all the customers within the project area. Veolia has set up three new customer service centers for the assistance of the customers also ensuring the billing and collection. All assets remain the property of Delhi Jal Board and DJB is responsible for setting the water tariff to customers throughout the project period.

Project Features

- Client: Delhi Jal Board
- Type of Contract: Long term performance contract
- Year of Award: 2013
- Year of Completion: 2028
- Scope of Work: Rehabilitation of the system within 4 years and O&M for 15 years
- Population Served: ~1 Million



OUR OBJECTIVE:

Demonstrate best practices in water management which can then be replicated throughout Delhi Jal Board area



**Water distribution improvement project
Nagpur, Maharashtra**

Complete water cycle management for entire city of Nagpur

Summary:

With rapid urbanization of Nagpur, the water supply challenges also increased. Water supply was intermittent and ranged from a few hours a day to at its worst, just a few minutes. Losses on water distribution network reached almost 60% and water was not always in line with drinking quality standards.

To overcome these issues, in 2012 Nagpur Municipal Corporation choose Veolia, making Nagpur to be the first city in India with a fully pressurized 24/7 drinking water supply system. This concession contract was enabled under the Jawaharlal Nehru National Urban Renewal Mission (JnNURM). The project is implemented through a joint venture company called Orange City Water (OCW).

The project to connect citizens in Nagpur with 24/7 water supply took a minimum of five years as considerable infrastructural upgrade and replacement of the available assets is required. The assets remain the property of the Nagpur Municipal Corporation, which is also responsible for setting up the tariffs.

As part of capex plan, OCW will lay ~600 Km of pipeline, rehabilitate/ install new water connection of ~450,000 over five years. OCW is operating all the five water treatment plants with combined capacity of ~750 MLD as well managing a water distribution network of ~3000 km.

This project will eventually connect every citizen including the slum population in Nagpur with 24/7 safe water supply which will be better in quality and pressure. This will also lead to reduction of water wastage arising from overflowing storage systems and open taps. As the network will be refurbished over a period of first 5 years, the water losses through pipe leakages will reduce significantly.

Project Features

- Client: Nagpur Municipal Corporation
- Type of Contract: Long term Performance Contract
- Year of Award: 2012
- Year of Completion: 2037
- Scope of Work: 25 years of O&M
- Population Served: ~3 million



OUR OBJECTIVE:

Providing inclusive growth, safe drinking water for all citizens in Nagpur irrespective of their economic status



**Comprehensive O&M contract
Indian Institute of Science, Bengaluru**

Managing water and waste water systems

Summary:

The prestigious Indian Institute of Science (IISc), Bengaluru, faced severe water shortage and sewerage issues, especially in the hostel blocks. With the increasing number of students from across the country, it needed a state-of-the-art water supply and sewer system to cater to their needs.

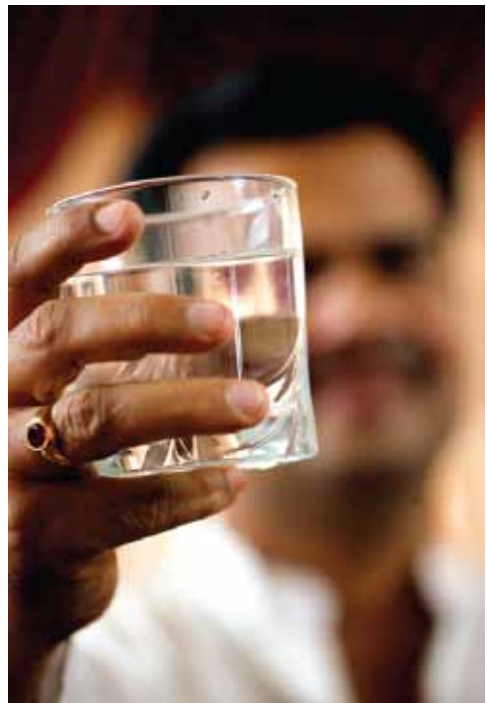
In 2012, the Institute entrusted Veolia with the responsibility of providing water supply to all the 8400 students and staff on its campus. The contract is also set for operation and maintenance of the Institute's sewer system.

Veolia's special leakage detection and rectification solutions ensure the Institute's water and sewage infrastructure complies with the best international standards. With 25.4 km water supply network and 13.5 km sewerage network across the campus along with a 24/7 customer care center and on-time complaint redressal, Veolia has been able to provide a seamless service to all the students and staff of this Institute.

Veolia reduces withdrawal from water resources, while continuing to meet the increasing demand in the hostel blocks for water. This helps optimize the overall consumption of water and thereby generate potential water savings.

Project Features

- Client: Indian Institute of Science, Bengaluru
- Type of Contract: Performance based management contract
- Year of Award: 2012
- Year of Completion: 2015
- Scope of Work: 3 years of O&M of existing water supply and sewerage system



OUR OBJECTIVE:

Demonstrate best O&M practices and conserve the water resources



**Water distribution improvement project
Bijapur, Karnataka**

First pilot 24/7 project in Bijapur

Summary:

The municipality of Bijapur chose Veolia to remodel its water supply distribution system. Today, Veolia provides 24/7 water supply to an area representing 15% of the total area of the city and comprising of more than 70,000 citizens, including slum dwellers.

The project involves designing and rehabilitating the existing water supply system over a period of 2 years and O&M of the system for 4 years while providing 24/7 water supply while meeting other key performance indicators. Veolia is also improving Customer Services while operating ~125 km of water distribution network along with ~ 5000 house service connections. Apart from providing continuous water supply, we also help the municipality in complaint redressal and monthly billing and collection of the water bills.

Veolia's state-of-the-art network design and leakage detection and rectification solutions have been able to prove that it is possible to supply safe water on a continuous basis for all customers, including slums. We implement innovative solutions to reduce withdrawal from water resources, while continuing to provide for the increasing demand for water. Our innovative technologies enable the city of Bijapur to extend the lifetime of pipeline networks, with minimal environmental impact, while reducing engineering and operating costs.

This performance based contract ensures to provide 100% safe quality water during its operations to all citizens.

Project Features

- Client: KUWS&DB
- Type of Contract: Performance Contract
- Year of Award: 2012
- Year of Completion: 2018
- Scope of Work: Construction within 2 years and 4 years of O&M
- Population Served: 70,000



OUR OBJECTIVE:

Demonstrate the feasibility and sustainability of 24/7 water supply to citizens in Bijapur



**Water distribution improvement project
Ilkal – Karnataka**

Providing 24/7 water supply to the city of Ilkal

Summary:

In 2013, the Ilkal Municipal Council awarded Veolia a contract for construction of 24/7 continuous water distribution networks and the operation and maintenance of the city's entire water supply system.

On behalf of the Ilkal City Municipal Council, Veolia will ensure that all the 65,000 citizens of the city have access to a constant supply of continuous safe water delivered under pressure to their taps. This exemplary partnership has shown that it is feasible and sustainable to provide 24/7 water supply to such remote towns in India as well.

The contract is executed within the framework of the North Karnataka Urban Water Sector Improvement Project (NKUSIP) and funded by the Asian Development Bank.

Through Veolia's state-of-the-art leakage detection and rectification process, Ilkal is set to have a fully pressurized, 24/7 water supply system for all its citizens. A customer service and support centre will also be situated at a location easily accessible to residents of all the distribution zones and operated on a 24-hour basis. Apart from this, all customer queries and complaints will be responded to within 24 hours and redressed within 7 days of such complaint or query.

Awarded through an international bidding process, this performance contract covered an initial 1 and half years of construction or rehabilitation phase followed by a 4 year operation and maintenance phase.

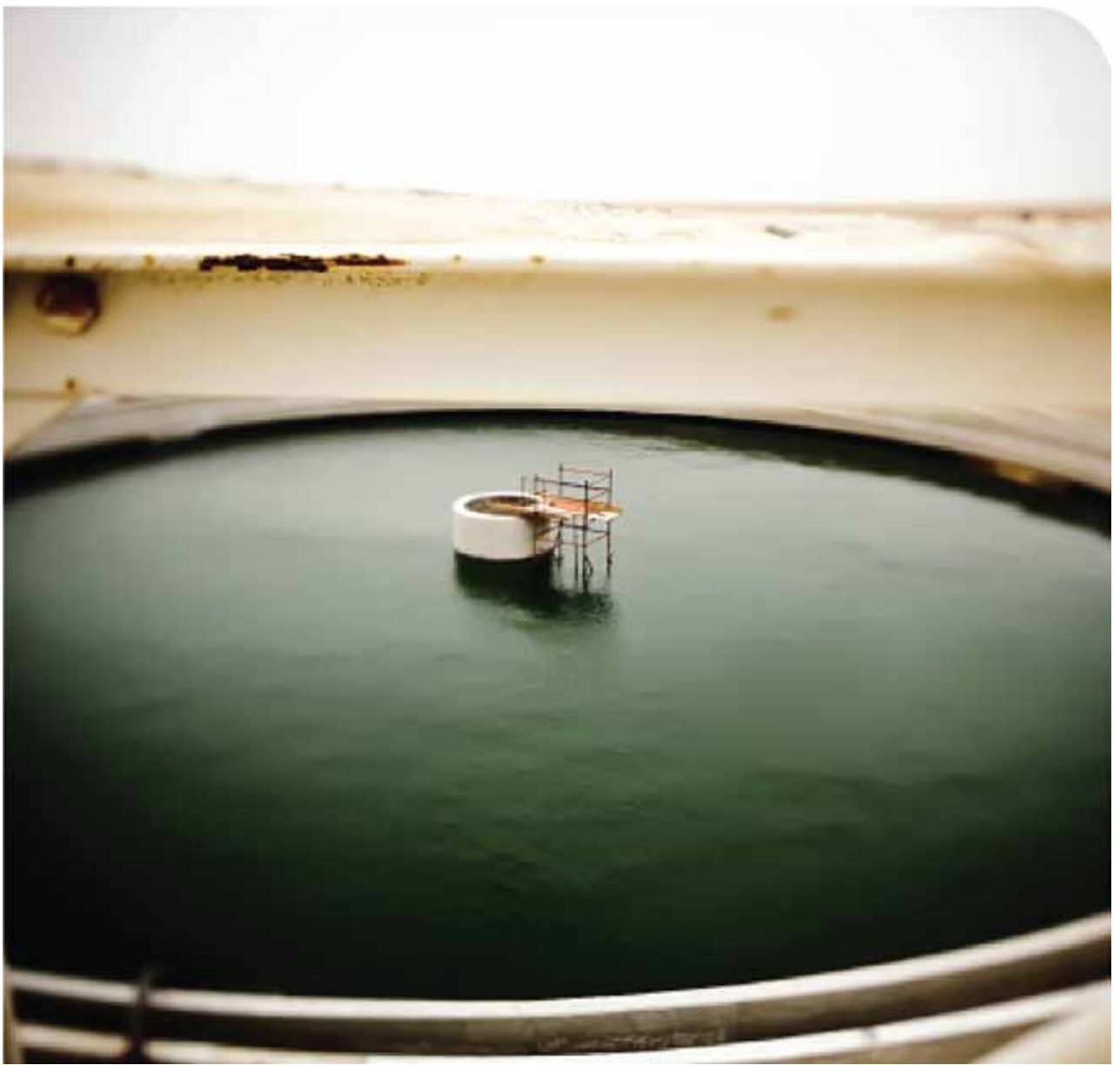
Project Features

- Client: KUIDFC
- Type of Contract: Performance Contract
- Year of Award: 2013
- Year of Completion: 2019
- Scope of Work: 18 months of construction, 3 months of transition phase and 4 years of O&M
- Population Served: 65,000



OUR OBJECTIVE:

Demonstrate feasibility and sustainability of 24/7 water supply in remote towns



**Construction and O&M of
Sewage Treatment Plant
Nilothi phase II, Delhi**

Creating value out of wastewater

Summary:

The population of New Delhi increased more than 26% from 2001 to 2011 leading to a strain on the city's energy and water resources. In 2012, Delhi Jal Board, the authority in-charge of water and sanitation, chose Veolia to design, build and operate an innovative green waste water (sewage) treatment plant with a capacity of 91 MLD (20 MGD).

The plant is located in the North western part of New Delhi, in Nilothi. It is the first sustainable sewage treatment plant in the city to use green process that includes the production of biogas and compost (fertilizer). Apart from this, Disc Filters in place of conventional gravity sand filters for tertiary treatment are used for the first time in India.

Veolia is providing international standard of waste water treatment technology, operating expertise, discharge standards and in energy efficiency. Around 50% of electricity requirement of the plant is produced from the in-house electricity generation through bio-gas generated from the plant and through gas engines.

The sludge treatment system will use digesters equipped with gas mixing system to optimize production of biogas, providing a source of green energy to meet the energy needs. The sludge is recovered in the form of highly stabilized compost which can be used by the region's farmers as fertilizers. The treated wastewater is discharged into the Yamuna River. To minimise the impact on water bodies/ environment into which effluents is discharged, the nutrients like nitrogen and phosphorus are removed in the treatment.

Project Features

- Client: Delhi Jal Board
- Type of Contract: Design Build Operate
- Year of Award: 2012
- Year of Completion: 2025
- Scope of Work: 2 years of Construction, 1 year of Defect Liability period and 10 years of O&M
- Plant Capacity: 91 MLD



OUR OBJECTIVE:

Set a precedent to the country on the comprehensive and sustainable solutions for Sewage treatment



**Construction and O&M of
Sewage Treatment Plant
Passikudah Bay – Sri Lanka**

Reviving tourism in Sri Lanka

Summary:

To revive tourism in the picturesque Passikudah Bay on Sri Lanka's east coast, the Sri Lanka Tourism Development Authority awarded the first ever public private partnership wastewater project to Lakdithaya, a joint venture between Veolia and Puritas, a subsidiary of Sri Lanka's renowned conglomerate, Hayleys.

In 2011, the Sri Lanka Tourism Development Authority chose Veolia to design and build and operate for 20 years. This Build, Operate, Transfer (BOT) type project comprises of a centralized waste water treatment plant and over eight kilometers of waste water lines, over four kilometers of treated water lines that link it with the 13 hotels spread over the 100 acres set aside for the resort. The plant utilizes Veolia Water's proprietary technology, Moving Bed Bio Reactor (MBBR), to treat 800 cubic meters of sewage and kitchen waste in a day.

This wastewater treatment plant is designed for 100% recycling of treated water and is the first Public Private Partnership (PPP) in the wastewater infrastructure sector in Sri Lanka. After the wastewater is processed in the treatment plant, the processed water is returned to the natural environment in a way that does not affect the environmental balance of the area. Veolia applies the best international treatment and discharge standards to protect the pristine beauty of Sri Lankan natural environment.

Project Features

- Client: Sri Lanka Tourism Development Authority
- Type of Contract: Build Operate and Transfer
- Year of Award: 2011
- Year of Completion: 2012
- Scope of Work: Designed and built and will be operated for a period of twenty years by Lakdiyatha (Pvt)
- Population Served: NA



OUR OBJECTIVE:

Construction of centralized wastewater treatment plant and over 8kms of wastewater lines to treat 800 cubic metres of sewerage and kitchen waste on a daily basis



Grameen Veolia Water Bangladesh

A social business solution

Summary:

Bangladesh is one of the most densely populated countries in the world. The country has abundant fresh water in form of groundwater resources which, over the years, has become one of the primary sources of drinking and cooking water. However, for geological reasons, this groundwater has been found to be contaminated with arsenic.

More than 40 out of 64 districts in Bangladesh have arsenic levels in groundwater above the World Health Organization (WHO) maximum permissible limit. Today 30 million people in Bangladesh are at the risk of arsenic poisoning related diseases.

To fight the problem of arsenic water contamination in Bangladesh, Professor Muhammad Yunus, founder of the Grameen Bank and recipient of the 2006 Nobel Peace Prize and Antoine Frérot, CEO of Veolia came together, in 2008, to create a joint venture company: Grameen Veolia Water Ltd. The objective of this business was to provide safe, arsenic-free water to rural areas in Bangladesh. Based on the concept of 'no-loss, no-dividend', this social business model aims to direct all the profits for further expansion and improvement of the rural water distribution network.

As arsenic is only present in groundwater, the company decided to treat surface water to avoid a costly arsenic treatment and a complicated sludge treatment. Arsenic content in the river water is low; however it is important to treat this water as it contains a range of natural and anthropogenic pollution by both micro-organisms and chemicals.

Grameen Veolia Water Ltd runs a world class water treatment plant that produces water in line with the Bangladesh Standard and Testing Institution (BSTI) and World Health Organization (WHO) standards. To ensure that the water is 100% safe for drinking, it is tested on a daily basis by the company's chemists in our laboratories.

Project Features

- Client: NA
- Type of Contract: Social Business
- Year of start of the project: 2008
- Year of Completion: On going
- Scope of Work: To design build and operate a drinking water treatment plant for the arsenic affected areas. All the profits earned are reinvested in the development of the project
- Population Served: 40,000



OUR OBJECTIVE:

Provide safe, arsenic-free water to rural areas in Bangladesh and to direct all the profits for further expansion and improvement of the rural water distribution network



**Water distribution improvement project
Hubli-Dharwad, Karnataka**

Second pilot 24/7 water supply in Hubli-Dharwad

Summary:

After the success of the KUWASIP project, in 2013, the municipality of Hubli-Dharwad chose Veolia to remodel its water supply distribution system for further areas. It is estimated that the project will serve 24/7 water supply to 150,000 citizens, including slum dwellers.

Veolia is responsible for the storage and distribution of water all day, every day and delivered under pressure to customers' taps. This comes as a major change for the local population who currently has access to water only for a few hours a day. We are also revamping customer services to meet, listen to and inform users and to help them deal with the new system. With Veolia's state-of-the-art network design and leakage detection and rectification solutions have been able to prove that it is possible to supply safe water on a continuous basis

Our solutions have enabled the city to extend the lifetime of the pipeline networks, with minimal environmental impact. In this process, we operate 270 km of network and 27,500 water connections in this zone.

Project Features

- Client: Karnataka Urban Water Supply & Drainage Board
- Type of Contract: Performance Contract
- Year of Award: 2013
- Year of Completion: 2020
- Scope of Work: 2 years of Construction and 5 years of O&M
- Population Served: 150,000



OUR OBJECTIVE:

Build on the early success of KUWASIP contract



**Construction and O&M of
Water Treatment Plant
Pench IV (Godhani), Nagpur,
Maharashtra**

State of art water treatment plant with Zero Liquid Discharge

Summary:

Veolia has been partnering with NMC to address the production needs of NMC for close to a decade. In this process NMC chose Veolia to construct a brand new 115 MLD water treatment plant.

The Pench IV water treatment plant has Veolia's patented technologies of Multiflo™ and TGV Filters. Multiflo is a compact clarifier that combines coagulation, flocculation and lamella settling, all in a single unit. This proves to be more efficient and occupying one-fourth of the space required for a conventional clarifier. The plant also includes a TGV Filtraflo which is a rapid gravitational filter using granular media to separate impurities from water. The plant is also equipped with sludge treatment to reduce the water losses in the plant.

The sludge generated from Multiflo™ desludging process will be treated using thickeners and the water will be re-circulated for treatment in the plant. This process is undertaken in addition to the filter backwash water which is re-circulated and treated in the plant. Undertaken for the first time in India, these steps will ensure a zero-liquid discharge waste plant.

This design, build and operate project is divided into two phases. The first phase is 27 months of Construction, followed by 10 years of Operation and Maintenance in the second phase.

Project Features

- Client: Nagpur Municipal Corporation (NMC)
- Type of Contract: Design Build and Operate
- Year of Award: 2009
- Year of Completion: 2025
- Scope of Work: 2 years of Construction and 10 years of O&M
- Plant Capacity: 115 MLD



OUR OBJECTIVE:

Conservation of water through ZLD water treatment plant



**Rehabilitate, augment and O&M of
Water Treatment Plant
Pench I, Nagpur, Maharashtra**

Optimizing the life of existing assets

Summary:

In 2007, Nagpur Municipal Corporation (NMC) awarded Veolia the contract for rehabilitation and augmentation of portable water treatment plant in order to meet the growing demand for water in the city of Nagpur. The Pench I project was undertaken with Jawaharlal Nehru National Urban Renewal Mission (JnNURM) funds including 70% from grant-in-aid and 30% from Veolia. Commissioned in 2008, Veolia operated and maintained the Pench I water treatment plant for a period of five years.

Veolia augmented the capacity of the Pench I water treatment plant from 113.5 MLD to 136 MLD (more than 20%) by rehabilitating the civil, mechanical, electrical and instrumentation facilities of the old units and installing a Multiflo TM for the first time in India.

Veolia improved the efficiency of the plant by replacing the old pumping machinery that resulted in considerable annual cost savings. For the first time, the backwash water of Pench I has been re-circulated in the system, which is a result of reducing the water loss.

Effective control and remote monitoring system were also installed as part of the improvement process, along with system up gradation to accommodate the above modifications.

The main aim of this contract was to rehabilitate the existing water plant and improve its efficiency and productivity as well as quality of water. The project was successfully operated and maintained by Veolia for five years and handed over to NMC on successful completion of the contract.

Project Features

- Client: Nagpur Municipal Corporation
- Type of Contract: Rehabilitate Operate and Transfer
- Year of Award: 2007
- Year of Completion: 2013
- Scope of Work: One year of Construction and 5 years of O&M
- Plant Capacity: 135 MLD



OUR OBJECTIVE:

Demonstrate the optimum utilization of existing assets instead of scrapping them and creating new assets



**Water distribution improvement project
Hubli-Dharwad, Karnataka
Phase I Part 1**

Third pilot 24 / 7 water supply project in Hubli-Dharwad

Summary:

After the success of the KUWASIP project, in 2013, the municipality of Hubli-Dharwad chose Veolia to remodel its water supply distribution system to another area. It is estimated that the project will serve 24/7 water supply to 128,000 people, including slum dwellers.

This performance-based management contract was awarded by the Karnataka Urban Water Supply and Drainage Board (KUWS&DB) on the basis of local tenders within the framework of Urban Water Supply Scheme (UWSS) i.e., local funding. Under this contract Veolia will be operating and maintaining the plant for 10 years after its construction.

Veolia responsible for storage and distribution of water all day, every day, delivered under pressure to customers' taps. This comes as a major change for the local population who currently has access to water only for a few hours a day. We are also revamping our customer services to meet, listen to and inform users and to help them deal with the new water distribution system. With Veolia's world class network design and leakage detection and rectification solutions, we have been able to achieve remarkable results.

Our solutions have enabled the city to extend the lifetime of the pipeline networks, with minimal environmental impact. We are providing 23,000 connections and covering more than 200 km of pipeline.

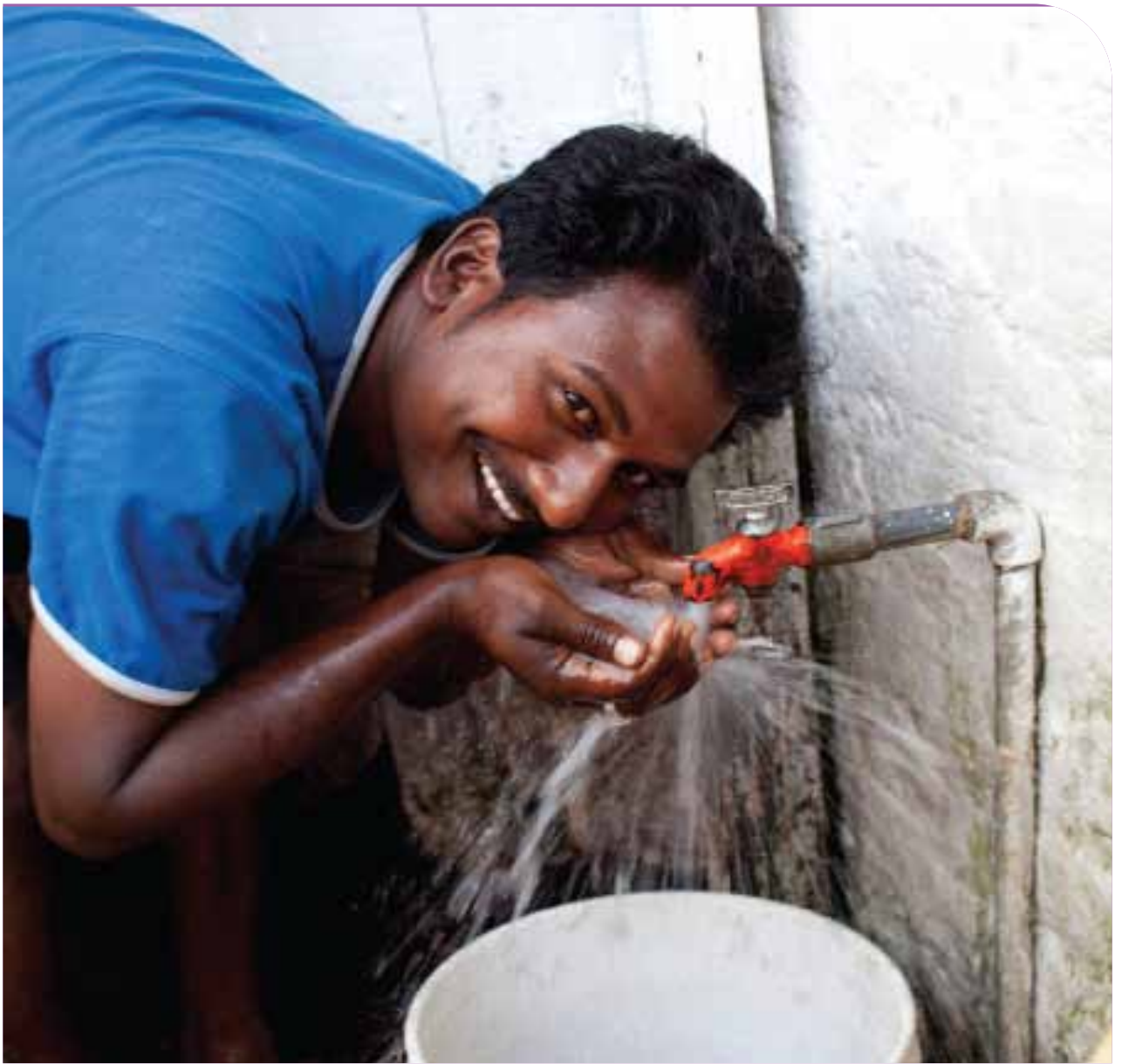
Project Features

- Client: KUWS&DB
- Type of Contract: Performance based Management Contract
- Year of Award: 2013
- Year of Completion: 2020
- Scope of Work: 2 years of Construction and 10 years of O&M
- Population Served: 128,000



OUR OBJECTIVE:

Build on the early success of KUWASIP contract



**Water distribution improvement project
Dharampeth demozone, Nagpur,
Maharashtra**

First pilot 24X7 water supply project in Nagpur

Summary:

The basic objectives of this contract were to provide uninterrupted water supply to all citizens, reduction in unaccounted for Water (UFW) and improvement in level of service to the customers of Dharampeth water supply zone of Nagpur city.

The entire contract was split into three phases as below :-

Phase 1: Comprehensive study/ diagnosis of the system (Base line Study)

Phase 2: Rehabilitation of the distribution network, Replacement of House Service Connections and customer metering, reduction in UFW, creation of a new billing system and taking over customer service management, O & M. (Rehabilitation Phase)

Phase 3: O&M of the area for 5 years

Veolia wanted to demonstrate in a new Indian region the capability of improving water services through a partnership between Public and Private sectors. To demonstrate the benefits of the partnership, this demonstration zone has been selected being the most representative area in terms of customers types in Nagpur.

The key objective of the contract was to demonstrate 24hour continuous water supply along with its tangible health, technical, operational and commercial benefits.

After the remarkable success of the Dharampeth demo zone, the Nagpur Municipal Corporation has scaled up the project for entire city which has been won by Veolia.

Project Features

- Client: Nagpur Municipal Corporation
- Type of Contract: Study, Rehabilitation and O&M Contract(Performance based)
- Year of Award: 2007
- Year of Completion: 2014
- Scope of Work: Diagnosis of the system followed by Rehabilitation of the network and 5 years of O&M
- Population Served: 160,000



OUR OBJECTIVE:

Demonstrate the feasibility of 24/7 water supply, learn the lessons before scaling for entire city



**Construction and O&M of
Water Treatment Plant
Kanhana, Nagpur, Maharashtra**

A state-of-the-art water treatment plant

Summary:

In 2008, NMC awarded Veolia a contract for construction of a new water treatment plant with 240 MLD capacity. NMC's decision was based on improving water infrastructure at Kanhan Water Treatment Plant in order to meet the growing demand of Nagpur. The new Kanhan plant was constructed using the funds from Jawaharlal Nehru National Urban Renewal Mission (JnNURM).

This design, build, operate plant will be operated by Veolia for 15 years. Commissioned in 2011, Kanhan is operating at its rated capacity of 240 MLD.

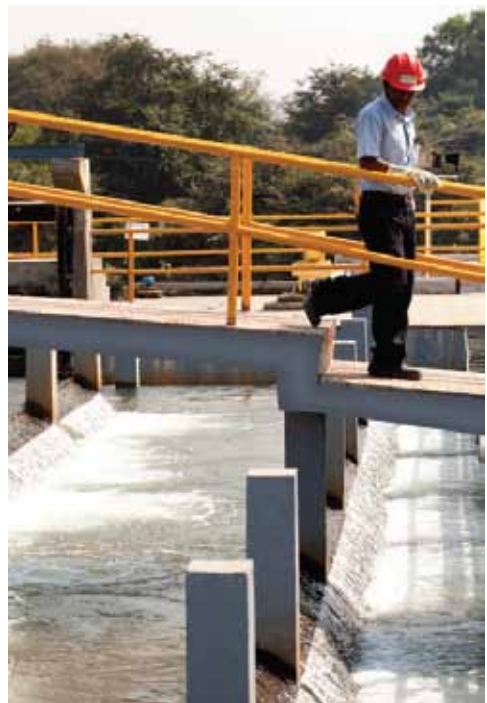
Supplying continuous water of the best quality to the city of Nagpur required the construction and installation of the latest and most innovative water treatment infrastructure. To increase the water production, Veolia constructed a new intake well on the opposite bank of Kanhan river for additional and continuous raw water availability.

Veolia successfully constructed a 240 MLD plant in the space originally designated for 120 MLD plant. Veolia installed its patent technology of small footprint state-of-the-art new Multiflo™ and TGV filters.

Due to the augmented water supply, the resident of East and North Nagpur - including slum areas now enjoy excellent water services from the Kanhan treatment plant.

Project Features

- Client: NMC
- Type of Contract: Design Build Operate Transfer
- Year of Award: 2008
- Year of Completion: 2026
- Scope of Work: 2.5 years of Construction and 15 years of O&M
- Plant Capacity: 240 MLD



OUR OBJECTIVE:

Implement state of the art and new technology in water treatment to gain operational efficiency



**Comprehensive O&M contract
MIHAN - Multi-modal International
Hub and Airport - Nagpur,
Maharashtra**

Managing water and wastewater treatment at MIHAN

Summary:

The state of Maharashtra is one of the fastest developing states in India, with growing water and wastewater treatment needs to sustain growth.

The Multi-modal International Hub and Airport at Nagpur (MIHAN) is one of the key economic development projects in India with a target to serve 13 million passengers and nearly a million tons of cargo. It comprises an airport terminal and a Special Economic Zone (SEZ), with a residential area covering nearly 40 square kilometers.

To support its fast development, MIHAN chose Veolia to manage the entire water waste water and tertiary system along with corresponding networks as well as customer service in 2010. Veolia operates and maintains a water treatment plant of 20.64 million liters per day capacity and a sewerage treatment of 39 million liters per day. The company also runs a tertiary waste water treatment plant to serve more than 800 industries needs of MIHAN and to minimize the impact on the environment.

In MIHAN, Veolia uses its global experience and innovative process (clarifiers and filtration) to serve the needs of this newly developed international hub. The treated wastewater from the sewerage treatment plants goes through a final process of tertiary treatment before being release in the environment or reused by industries. Such a comprehensive treatment process with 183 kilometers of network across helps meet MIHAN's industrial need and preserve the environment.

Project Features

- Client: Maharashtra Airport Development Company Ltd.
- Type of Contract: Operation and Maintenance
- Year of Award: 2010
- Year of Completion: 2020
- Scope of Work: 10 years of Operation and Maintenance



OUR OBJECTIVE:

Be a one stop solution for all water needs to Industry