

## **R.V. Anderson Associates Limited, Toronto Canada**

### **Transformation of the Mumbai Environment Through the Renewed Mumbai Sewage Priority Works Project**

**Mumbai, India (December, 2009)** - The Municipal Corporation of Brihan Mumbai (MCBM) is currently undertaking one of the largest wastewater design and construction projects in the world. R.V. Anderson Associates Limited of Toronto, Canada, in association with Mott MacDonald Limited and PHE Consultants, have been working since 2007 on the design and implementation of the Mumbai Sewage Priority Works Project, which includes improvements to the City of Mumbai's wastewater system.

The long term *Master Plan* for Mumbai's sewage collection and treatment systems, also prepared by the same team in 2002, provided the foundation for the current construction project. Significant changes occurred with regards to the availability of land, environmental regulations and funding availability since preparation of the Master Plan.

Since 2007 the team worked to reformulate the project components to mitigate the various needs and concerns such as limited land availability, zero impact on coastal mangroves, reduced waste loads to the environment, energy recovery from biosolids for enhanced sustainability and reuse of treated effluent.

"The project components were reformulated to address the concerns of the citizens and various stakeholders, enhance the project sustainability and incorporate the future needs of Mumbai. The project will upgrade the treatment and disposal infrastructure allowing the City of Mumbai to meet higher environmental standards for effluent discharge than was originally planned under the Priority Works. This will ensure rapid improvement of the coastal waters of Mumbai" summarized RVA Project Manager Sanjay Devnani.

The works under the updated project having a capital value of nearly Rs. 4000 crores includes construction of new pumping stations and rehabilitation of existing trunk sewers; a tunneled collector sewer system with transfer tunnels and an outfall system have been designed to avoid any damage to the environmentally sensitive mangrove area along the northern shores of Mumbai; Preliminary design of eight new state-of-the-art treatment facilities have been undertaken to meet stringent discharge criteria matching global standards. The MCGM has recently approved the reformulated project and the team has embarked on the implementation activity for the project.

This ambitious project will help to improve the quality of life for the citizens of Mumbai, and will provide benefits to the land and coastal environment of the City, including cleaner nallahs and drains, and beaches free of contamination, litter and debris. The project involves new, sustainable technologies that are designed to meet the City's needs for many years to come.

“Full credit goes to MCGM's decision makers that have made the bold and visionary move to advance the implementation of the latter phases of the Master Plan, recognizing the needs of the future development of Mumbai. Our team is most proud to be a part of this ambitious project” said Mr. Devnani of RVA.

The project is funded to be jointly by the MCBM and the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), India's national fund for municipal infrastructure renewal.

R.V. Anderson Associates Limited (RVA) has been engaged in the provision of professional engineering, and infrastructure development services since 1948. The organization comprises environmental and infrastructure specialists for water, wastewater, transportation, and urban development, and has a successful history working in India and for the MCBM.

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