



DEPARTMENT OF CIVIL ENGINEERING SITE VISIT REPORT

Subject: - Environmental Engineering 1 (SEM V)

Site Visit Date: - 11-09-2019

Site:-Water Treatment Plant, Bhandup

Site Address:- Bhandup water Complex, Khinepada Bhandup. Maharashtra 400709



As per the curriculum of University of Mumbai , students of Third Year Civil Engineering having Environmental Engineering 1, required to visit a site as a part of their term work.

A site visit was arranged to Bhandup water Complex, Khinepada, Bhandup which is run by Bruhan Mumbai Municipal Corporation, Mumbai.

About the Plant:-

Bhandup Water Treatment plant is established in 1980 is one of the biggest plants in Asia, run by Mumbai Municipal Corporation, in the state of Maharashtra, having capacity 2100 MLD. This 365-acre forest complex in Bhandup is bordered by the Borivli National Park and Yeoor Hills. Around 450 people work round-the-clock in shifts to ensure that over 12 million Mumbaikars receive a continuous supply of clean water from their taps each day.

Raw water from four lakes viz. Tansa, Bhatsa, Vaitarna and Upper vaitarna arrives through trunk mains and into the inlet bay of the Bhandup complex.

To supply safe drinking water is the responsibility of any water utility. In Water Treatment Plant plant the raw water is treated for physical, chemical and biological standards to achieve the required drinking water standards.

At the water-testing laboratory inside the complex, Various tests are performed at every stage every day. There are 20 different sampling pipelines which continuously bring treated water at various stages of the process into the laboratory. Every day, three to four tonnes of chlorine is used to treat water.

In this site visit, students have got the knowledge regarding –

- Functioning of water treatment Plant in actual practice.
- Various essential units of WTP
- Technical details of each unit with their working
- The various routine laboratory tests done on raw as well as pure water.

Remark: PO1, PO2, and PO3, PO5 and PO12 are covered.
 PSO1, PSO3 are covered.

PO Covered	Justification
PO1	Students will be able to apply the knowledge of science, engineering fundamentals, and an engineering specialization for the solution of water treatment.
PO2	Students will be able to identify, formulate, research literature, and analyse complex engineering problems and reach the solution by using natural and engineering sciences.
PO3	Students will be able to design the process for the treatment of water that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.
PO5	Students will be able to understand the modern IT tools which is used in running the water treatment plant.
PO12	Students will be able to learn technological advance in engineering in order to stay current regarding new developments in the field that leads to life-long learning.

PSO Covered	Justification
PSO1	Students will be able to survey environmental engineering problems.
PSO3	Students will be able to work for public health and welfare along with maintaining sanitation.