



SREE GOKULAM NURSING COLLEGE, VENJARAMOODU DEPARTMENT OF COMMUNITY HEALTH NURSING

Water Treatment Plant - Observation Visit Report

As a part of Community Health Nursing posting for 5th semester BSc nursing students & 2nd year Post basic BSc nursing students, visited water plant in Aruvikkara. Water treatment plants are essential for providing safe and potable drinking water to the community.

The Aruvikkara Water Treatment Plant is one of the major sources of drinking water supply to Thiruvananthapuram city. It treats raw water collected from the Aruvikkara reservoir and supplies it to various parts of the city. It is situated near the **Aruvikkara Dam**, which serves as the main source of raw water, the major plant has a capacity of about 72 – 76 MLD (Million Liters per Day). Students got adequate information regarding various steps and the process of water purification.

Objectives of the visit

1. **Understand Water-Borne Diseases:** Learn about water-borne diseases and their impact on public health.
2. **Water Treatment Process:** Observe and understand the different stages of the water treatment process.
3. **Importance of Clean Water:** Appreciate the importance of clean water in preventing water borne diseases.
4. **Role of Water Treatment in Public Health:** Understand the role of water treatment plants in maintaining public health.
5. **Nursing Implications:** Learn about the nursing implications of water-borne diseases and the importance of promoting clean water practices.

Key Components:

- **Water Source:** The plant draws water from a nearby source, which could be a river, lake, or reservoir.
- **Treatment Process:** The treatment process typically involves several stages, including: intake of raw water, screening then -



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- **Coagulation and Flocculation:** Chemicals are added to remove dirt and other suspended particles from the water.
- **Sedimentation:** The water is left to sit, allowing the heavy particles to settle to the bottom.
- **Filtration:** The water passes through filters, which remove any remaining suspended particles.
- **Disinfection:** Chlorine or other disinfectants are added to kill bacteria and other microorganisms.
- **Storage and Distribution:** The treated water is stored in tanks and distributed to households and businesses through a network of pipes.

Observational Visit Highlights:

- **Plant Operations:** Observe the different stages of the treatment process and how the plant operates.
- **Water Quality Monitoring:** See how the plant monitors water quality and ensures it meets regulatory standards.
- **Maintenance and Upkeep:** Learn about the regular maintenance and upkeep activities carried out at the plant.
- **Safety Measures:** Observe the safety measures in place to protect workers and the environment.
- **Practical Knowledge:** Gain hands-on knowledge of water treatment processes and operations.
- **Understanding Water Quality:** Learn about the importance of water quality and how it's monitored.
- **Appreciation for Infrastructure:** Develop an appreciation for the infrastructure and resources required to supply clean water.

Report

As a part of Community Health Nursing posting, 5th Semester B.Sc. Nursing Students & 2nd year Post Basic B.Sc. Nursing students, visited water purification plant on 10/12/25 and 12/03/26 Mrs. Nivya S R, Mrs. Aarcha S Nandan & Mrs. Aswathi took part in the observation visit. There were various sessions taken in the water treatment plant include classes and observation visit of the water plant. The advanced technologies used in the plant were Sludge Blanket Clarifiers, Rapid gravity sand filters, SCADA (automated monitoring system). The aruvikkara water treatment plant plays a vital role



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in ensuring safe drinking water supply to the people of Thiruvananthapuram. It supports public health and sanitation. Through the visit students got adequate knowledge regarding water treatment plant. The objectives helped the nursing students to gain a comprehensive understanding of water treatment and its significance in public health, ultimately enhancing their ability to provide quality care and promote health.



IQAC Coordinator

Principal