

## READING LIST:

Wastewater Engineering (2003) Fourth Edition by Ruth F. Weiner. Butter Heinemann, Elsevier Science USA.

Wastewater Engineering. Treatment and Reuse (2004) Fourth Edition by Metcalf and Eddy. Tata McGraw-Hill Edition New Delhi

## LECTURE NOTES:

### Introduction

- The liquid waste- wastewater is essentially the water supply of the community after it has been used in a variety of applications
- Wastewater may be defined from the standpoint of sources of generation as a combination of the liquid or water-carried wastes removed from institution, commercial and industrial establishments
- When this wastewater accumulates and is allowed to go septic, the decomposition of the organic matter it contains will lead to nuisance conditions
- The immediate and nuisance free removal of wastewater from its sources of generation followed by treatment, reuse or disposal into the environment is necessary to protect public health and the environment.
- Wastewater engineering is that branch of environmental engineering in which the basic principles of science and engineering are applied to solve the issues associated with the treatment and reuse of wastewater.

The ultimate goal of wastewater engineering is the protection of public health in a manner commensurate with environmental, economic, social and political concerns

### Basis Terminologies

- Biosolids
- Characteristics
- Composition
- Constituent
- Disinfection
- Non-point source
- Point source
- Reclamation
- Sludge

### Sewage

- Domestic or sanitary wastewater refers to liquid discharged from residential, business buildings and institutions. Industrial wastewater is discharged from manufacturing plants.
- Municipal wastewater is the general term applied to the liquid collected in sanitary sewers and treated in municipal plants
- Domestic sewage is composed of human body waste and sullage which is the wastewater resulting from personal washing, laundry, and cleaning of kitchen utensils