RANIGANJ GIRL'S COLLEGE

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Subject - ENVIRONMENTAL STUDIES

Raniganj Girls' College

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Course Code: AEE101

Topic of the project: Different aspects of Air, Soil, Water, Noise pollution

A Project Report

Submitted by Semester-I students (Academic Year 2021-22)

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CERTIFICATE

This is to certify that this project titled "Different aspects of Air, Soil, Water, Noise pollution" submitted by the students for the award of degree of B.A. Honours/ Program is a bonafide record of work carried out under my guidance and supervision.

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Place: Raniganj

Date: 18.03.2022

Jishin Subhra Ghosh

Assistant Professor, Department of Zoology

Signature of the supervisor with designation and department

TOPIC

SURFACE WATER QUALITY MANAGEMET IN LOCALITY

INDEX

Water Quality management :- Water Quality management is a process of developing, planning, distributing and managing the optimum use of water resource. Water is a basic necessity. No living creature can live without water. There is a scarcity of water. To avoid this scarcity, water is saved and managed efficient.

Types of Water Quality :- Water quality can be classified into four types — potable water, palatable water, contaminated (polluted) water, and infected water. The most common Scientific definitions of these types of water quality are as follows:

1. **potable water :-** It is safe to drink, pleasant to taste and usable for domestic purpose.

2. **palatable water :-** It is esthetically pleasing it considers the presence of chemicals that do not cause a threat to human health.

Contaminated (polluted) Water

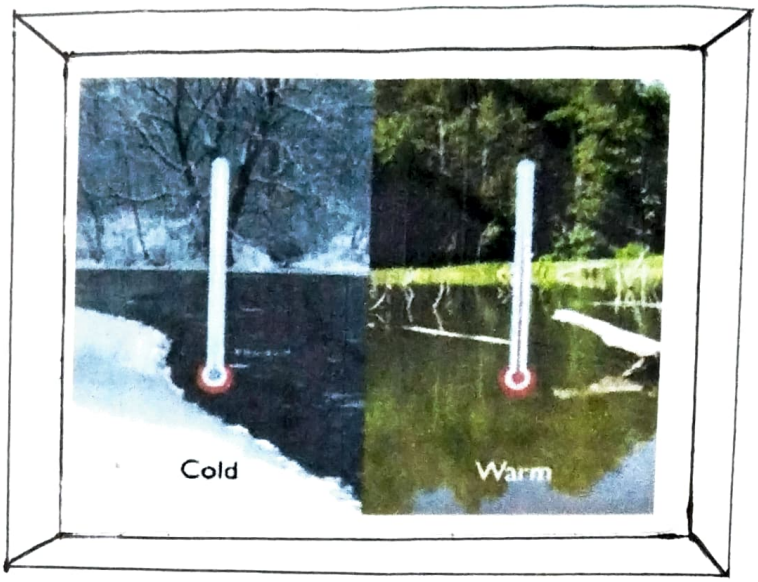
Infected water

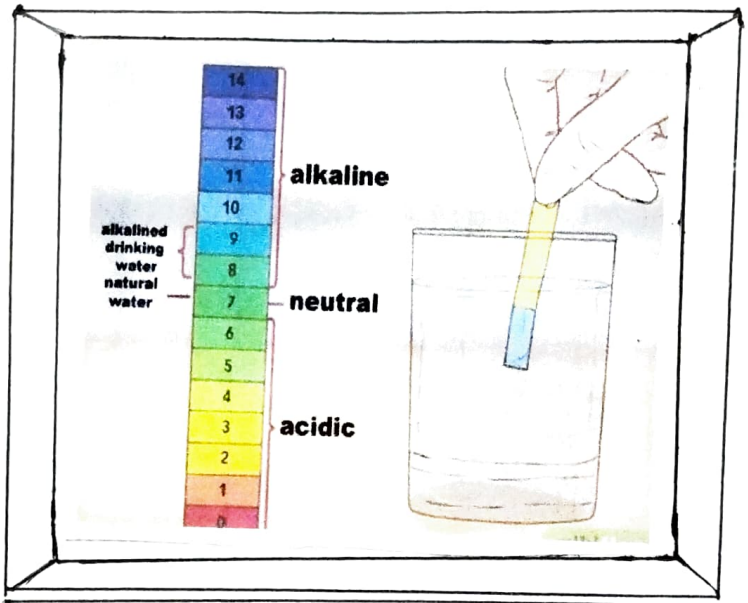
3. Contaminated (polluted) water :- It is that water containing unwanted physical, chemical, biological or radiological substances, and it is unfit for drinking or domestic use.

4. Infected water :- It is contaminated with pathogric organism.

Important of Water Quality :-

Scientists measure a variety of propeties to determine water quality. These include temperature acidity (PH), dissolved oxygen, hardness and dissolved Solids (specific Conductance), particulate matter (turbidity) and Suspended Sediment. Each reveals Something different about the health of a water body. The following water properties are important in determining water quality :


Cold
Warm


14
13
12
11
10
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8
7
6
5
4
3
2
1
0
alkaline
alkalined drinking water
natural water
neutral
acidic

1. Temperature :- Water temperature is important to fish and aquatic plants. Temperature can affect the level of oxygen as well as the ability of organisms to resist certain pollutants.

2. Acidity (PH) :- The measurement of PH is a measure of the amount of hydrogen ions (H^+) present in a substance such as water. Knowing the amount of hydrogen in a substance allows us to judge whether it is acidic neutral or basic.

3. Dissolved Oxygen :- A small amount of oxygen about ten molecules of oxygen per million molecules of water. Fish and microscopic organisms needs dissolved oxygen to survive.

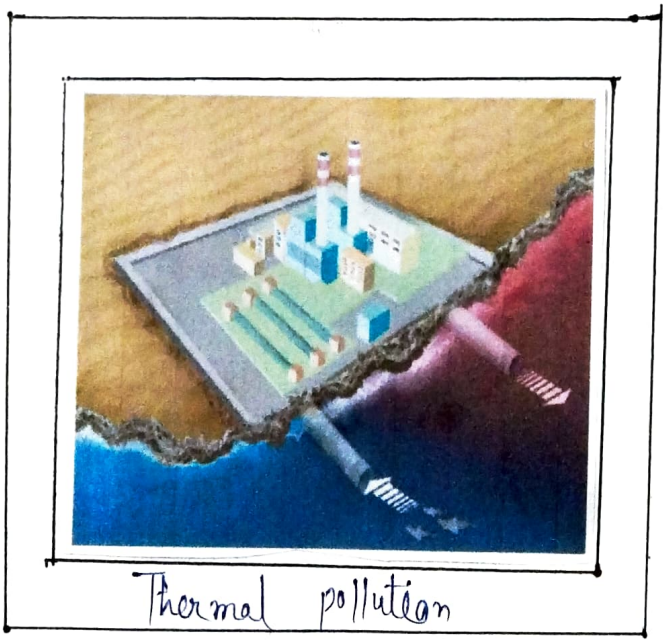
4. Turbidity :- Turbidity makes the water cloudy or opaque. Turbidity is the amount of particulate matter (such as clay, silt plankton or microscopic organism) suspended in water.

5. Specific Conductance :- Specific conductance measure the capacity of water to conduct an electrical current. It depends on the amount to dissolved solids, such as salt in the water.

6. Hardness :- The amount of dissolved calcium and magnesium in water determines its 'hardness'. water hardness varies throughout the united states.

7. Suspended Sediment :- Suspended Sediment is the amount of soil circulating in water. The amount depends in part on the speed of the water flow. Fast flowing water can pick up and hold or suspend more soil than calm water.

Agricultural Waste



Thermal pollution

Sources of Surface water pollution :- surface water is polluted by the following agents : Industrial pollution : pollution of rivers, streams and lakes by various industrial effluents, which are dumped into the drainage system are called industrial pollution. The following Sources of Surface water pollution are :

1. Agricultural waste :- DDT, BHC, Andrin etc are used as insecticides in agricultural the pesticides are washed away with rain and the surface water is polluted.

2. Radioactive waste : Radioactive waste from nuclear reactor contains a variety of radioactive isotopes and if these are released into the aquatic system. They not only contaminate the water, but also adversely affect the aquatic life.

3. Thermal pollution :- It hot water from Industries is released directly into river water, normal temperature and water pollution can increase the temperature of river by 25°C.

Municipal Sewage

4. From municipal Sewage : The Surface water of municipal Sewage is another Source of pollution. people defecating in open fields is a very common sight in many rural areas of our Country. Nearby reservoirs carry human brain and animal dung due to rain. Human brain dung contain harmful microorganisms that can cause diseases such as diarrhea, gastroenteritis dysentery and jaundice. The toilet is obtained by disposing of the "waste" from the toilent, bathroom, kitchen etc.

5. Oil pollution :- Water pollution by oil poses a very special problem because oily water has a thin layer over vast areas of the surface, causing respiratory problem for aquatic organisms.

prevent Surface water pollution :-

1. pick up litter and throw it away in a garbage can.

2. Blow or Sweep fertilizer back onto the grass if it gets into paved areas. Don't put fertilizer on grass right before it rains. The Chemical will wash into storm drains and water ways.

3. Wash your car or outdoor equipment where it can flow to a gravel or grassy area instead of a Street.

4. Don't pour your motor oil down the storm drain. Take it to the nearest auto parts store. It's free.

5. Never clean up a spill by hosing it into a storm drain. place kitty litter, Sand or another absorbent on the spill. Once the liquids becomes solid - sweep it up and throw it in a garbage can.

Conclusion :- Surface water pollution stems from many source and cause, only a few of which are discussed here. Rivers and streams demonstrate some capacity to recover from the effect of certain pollutants, but lakes bays, sluggish rivers and oceans have little resistance to the effects of surface water pollution.