

# **WATER POLLUTION and CONTROL**

## **WATER POLLUTION SOURCES**

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Water pollutants have undesirable effect on living organisms.

The water used for domestic, agricultural and industrial purposes is discharged with some undesirable impurities in water.

These contamination leads the pollution of water, which is generally called the **fresh water pollution**.

Fresh water pollution may be classified into two types:

- **surface water pollution**
- **ground water pollution.**

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- In general, **pollutants can be released into the environment** as gases, dissolved substances or in the particulate form.
  - Ultimately pollutants reach the aquatic environment through a variety of pathways, including the atmosphere and the soil.

### A point and a diffuse pollutant source are:

- An important difference between a point and a diffuse source is that **a point source may be collected, treated or controlled easily.**
- **The major point sources of pollution** to freshwaters originate from the collection and discharge of domestic waste waters, industrial wastes or certain agricultural activities.

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- Most other agricultural activities, such as pesticide spraying or fertiliser application, are considered as **diffuse sources**.
  - The atmospheric fall-out of pollutants also leads to **diffuse pollution** of the aquatic

## (ii) Natural and Anthropogenic Sources

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An increase called **natural sources** in the concentration of naturally occurring substances is also termed pollution.

**Siltation** is one such natural source. It is a common natural phenomenon, which occurs in most water bodies.

\* Sources of anthropogenic materials to the atmosphere include:

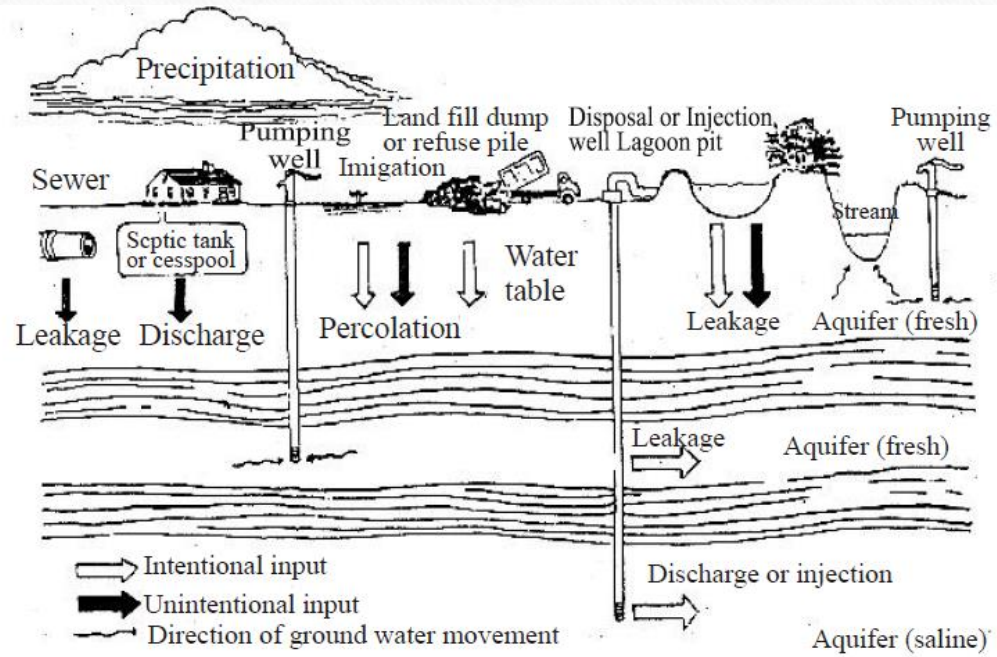
- combustion of fossil fuels for energy generation,
- combustion of fossil fuels in automobiles, other forms of transport, heating in cold climates and industrial needs,
- wind blown soils from arid and agricultural regions,
- volatilisation from agriculture, from waste disposal and from previously polluted regions.

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The human activities that result into the pollution of water are called **anthropogenic or man made sources** of water pollution.

**Anthropogenic sources** of water pollution are domestic (sewage and waste water), industrial and agricultural wastes that goes into the rivers, lakes, streams and seas. These materials that are leached from the land by run-off water and enter the various water bodies also belong to this classification.





**Fig. 34.2 :** *Anthropogenic Sources of water pollution*

Taken from <http://www.nios.ac.in/media/documents/313courseE/L34.pdf>