

Topic 8.1

Sources of Pollution

You Will Learn to:

- Describe the difference between point and nonpoint sources of pollution.

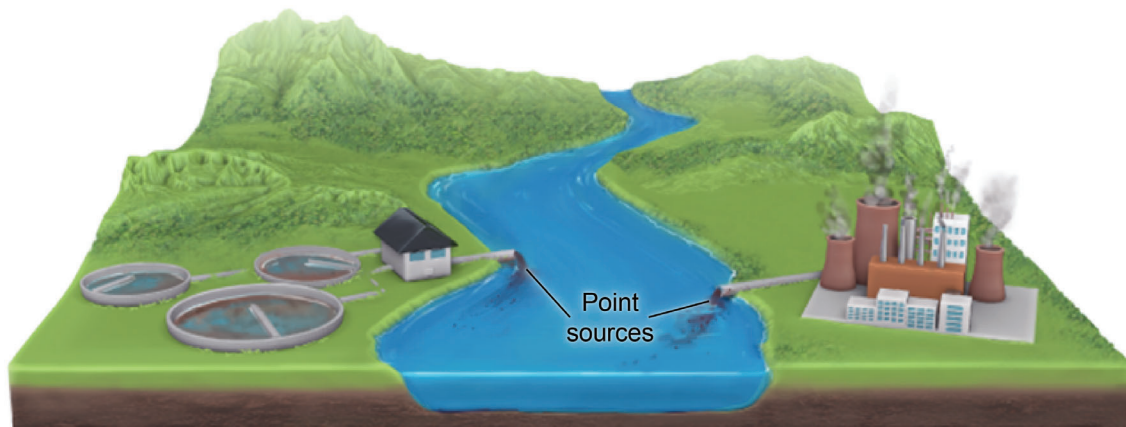
By the End of the Topic, You Should Be Able to Answer:

- What is a point source of pollution?
- What is a nonpoint source of pollution?
- Which sources of pollution are most easily regulated?

Sources of Pollution

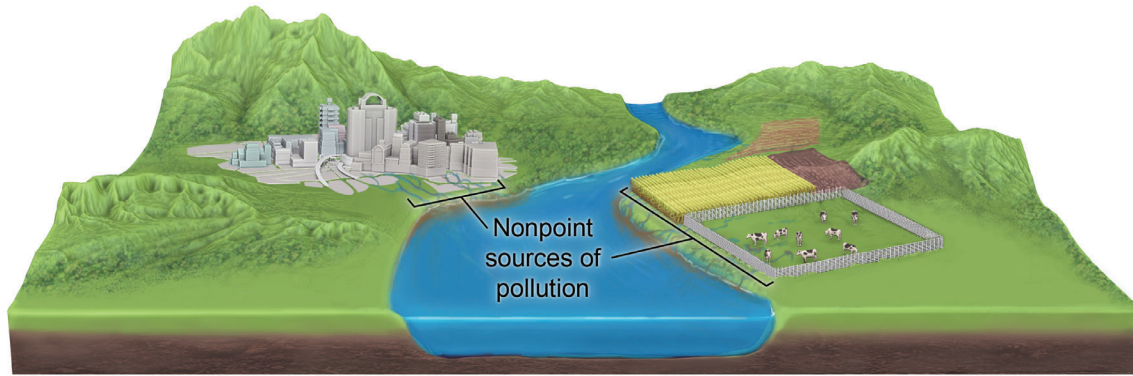
Anthropogenic activities can pollute the atmosphere, bodies of water, and land through various sources. Sources of pollutants are categorized based on the manner in which pollutants are released into the environment.

Point Sources



Point sources are single, identifiable sources from which pollutants are released. Examples of point sources include discharge pipes from sewage treatment plants and smokestacks from power plants. Because point sources are identifiable, they are often regulated.

Nonpoint Sources



Nonpoint sources are large, extensive locations from which pollutants are diffused, which makes these sources difficult to identify and regulate. Examples of nonpoint sources include runoff from urban and agricultural areas.

Case Study



Source: The Cleveland Press Collection

Prior to 1970, the Cuyahoga River in Ohio was one of the most polluted rivers in the United States because many factories would dump their waste into the river. In 1969, the river gained national attention after catching fire for the thirteenth time. This prompted action by the United States government that led to the **Clean Water Act**, which regulates point sources of pollution by requiring corporations to obtain a permit to discharge waste.

Things to Remember

- An identifiable source of a pollutant, such as a waste discharge pipe from a sewage treatment plant, is known as a point source.
- Nonpoint sources of pollution, such as runoff from agricultural or urban locations, are spread out over large areas and are therefore difficult to identify.

8.1 Vocabulary

Clean Water Act	United States law enacted in 1972 that regulates point sources of pollution by requiring corporations to obtain a permit to discharge waste into waterways.
Nonpoint source	Sources of pollution that are diffused over a large area.
Point source	Single, easily identifiable source of pollution.

8.1 Check for Understanding

- 1. Which of the following is an example of a point source of pollution?**
 - A. Pesticide spray from farmland
 - B. Runoff from a suburban neighborhood
 - C. Discharge from a factory
 - D. Oil from city streets

- 2. Which of the following would most likely result in the contamination of a body of water near an agricultural field?**
 - A. Increased precipitation
 - B. Increased waste collection
 - C. Decreased size of the field
 - D. Decreased wind

- 3. Which of the following explains why point sources can be regulated more easily than nonpoint sources?**
 - A. Point sources are single locations of pollution that can be identified, while nonpoint sources are large areas from which pollution is dispersed.
 - B. Point sources are associated with anthropogenic activities, while nonpoint sources are associated with natural sources.
 - C. Point sources are large areas from which pollution is dispersed, while nonpoint sources are single locations of pollution that can be identified.
 - D. Point sources are associated with natural sources, while nonpoint sources are associated with anthropogenic activities.