

# Human Impact: Water Pollution

Water is a vital resource for all living things. Lakes, rivers, oceans, and other bodies of water provide habitats and drinking water for many species. Unfortunately, human activity has polluted many of these water sources. **Water pollution** happens when harmful materials contaminate a body of water.

Sources of water pollution vary, but some examples include sewage, agricultural runoff, and oil spills. Water pollution can come from point or nonpoint sources. **Point source pollution** comes from a clearly identifiable source, such as a specific factory. **Nonpoint source pollution** comes from many places. For example, after a heavy rain, runoff can carry pollution from cities and farms into a body of water. Regardless of the source, water pollution has many negative impacts on the surrounding environment. Read the case study below to learn more.



## Case Study: Onondaga Lake

Onondaga Lake, located just north of Syracuse, New York, was actively polluted for over 100 years. The main source of pollution in the lake was industrial waste. Heavy metals and other contaminants were released into the lake by nearby factories. Water runoff also carried pollution into the lake from the surrounding areas.

The impact of pollution on the environment surrounding Onondaga Lake has been extensive. Algae blooms, caused by stormwater runoff, produced additional toxins in the water. These toxins contaminated fish and other aquatic animals. Many species died off as a result.

Thanks to ongoing cleanup efforts, Onondaga Lake is much cleaner now than it once was. Various entry points for pollution have been identified and eliminated. Contaminated sediment and soil at the bottom of the lake have been excavated and treated. These efforts have restored some of the habitats in and around the lake. The fish population is significantly less contaminated and more diverse. As a result, fishing is now permitted on the lake. Birds of prey and other animals that eat the fish have also returned to the area.



*Onondaga Lake was polluted for over 100 years by industrial waste and water runoff.*

# Human Impact: Water Pollution

**Answer the questions below to conduct your own water pollution case study!** Refer to the background information and sample case study on page 1 as needed. Conduct research using online resources or textbooks.

**1.** Select a specific body of water that is affected by water pollution: \_\_\_\_\_

Where is this body of water located? \_\_\_\_\_

**2.** Look up some photos of this body of water. Describe what you see. Does this match what you would expect? Explain why or why not.

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**3.** What are some sources of pollution in this body of water?

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**4.** Are the sources of pollution you identified in question 3 point or nonpoint sources? Explain how you know.

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**5.** What are some specific ways that water pollution is negatively impacting the surrounding environment?

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**6.** What is being done to address the pollution? What could be done in the future?

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**7.** How would the environment and society be improved if this body of water was no longer polluted?

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