

Drain Detectives Program



What is the Drain Detectives Program?

The Drain Detectives Program is an interactive presentation designed for 5th through 12th grades. During the presentation, students learn about the watershed they live in and how water moves across it. Through displays and demonstrations, students learn how pollution can get into our

waterways, what to look for, how to detect it, and how to trace the source of the pollution. Students will learn how they can help prevent pollution and how to report pollution incidents through Oakland County's 24-Hour Pollution Hotline. Hands-on demonstrations are included to provide students with the opportunity to see and utilize some of the latest equipment and technology in water quality monitoring and some students will get to assist in experiments used to detect and identify pollutants in the water.

Why Does Oakland County Need Drain Detectives?

Pollution to area waterways can harm fish and other aquatic life, make people and animals sick, and can ruin the beauty of our lakes, streams and wetlands. Students can become an honorary Drain Detective and learn how they can help Oakland County staff find illegal discharges of pollution to our waterways.



How to Schedule a Visit to Your School:

Please contact the WRC Environmental Team at 248-858-5264 or e-mail: envreq@oakgov.com for more information or to schedule a presentation.

Additional Details of What the Presentation Covers

- **We discuss the different types of Storm Water collection systems and the differences between Wastewater and Storm Water systems and their importance.**

We briefly show an overview of how these systems work through diagrams and photos, emphasizing that storm water is untreated before entering receiving waters.

- **Watersheds and how they work.**

We cover the water cycle, where water comes from and where water goes. Using maps, satellite views and photos, we show how water travels across Southeast Michigan, collecting in streams, rivers and lakes before eventually discharging into the Great Lakes and the Atlantic Ocean.

- **Types of pollution that have the biggest impact on surface waters.**

We discuss the major sources of water pollution. Using photographs and real life examples we illustrate some of the most common types of water pollution, and discuss the causes and the problems created by specific types of pollution. We also talk about pollution prevention efforts appropriate for the age group of our audience.

- **Tools that we utilize during surveys and investigation of pollution sources.**

We display and demonstrate the diverse set of equipment that inspectors use to locate, identify and analyze different types of pollutants on a daily basis. This includes GPS mapping, water quality monitoring, chemical testing, water sampling, safety and data-logging devices and equipment.

- **Conduct interactive small group exercises about the different types of water pollution.**

In addition to the demonstration and lecture portion of our program, we separate the class into smaller groups for exercises designed to help them understand the effects that certain types of pollution have on surface water.

- **Hands-on interactive experiments to demonstrate powers of observation.**

Activities are included during the demonstrations to allow volunteers to assist in testing water samples for the presence of certain pollutants. These experiments show how water that often looks clean is not always clean. Teachers like this because of the dramatic effect.

- **The sessions are adaptable to all ages and we encourage questions throughout the presentation.**