



Acton Lake Dam-Four Mile Creek Watershed Fact Sheet

Did you know...

Wherever you are standing, you are in a watershed. When precipitation falls, some of the water will infiltrate into the soil and replenish groundwater. Water that falls on hard surfaces will flow into storm drains and eventually into nearby streams, rivers, and lakes, carrying pollutants with it. Watersheds vary in size from a few square miles to thousands of square miles.



Acton Lake Dam-Four Mile Creek Watershed Facts



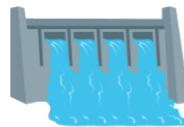
- ⇒ Acton Lake Dam-Four Mile Creek is a 42 square mile watershed spanning both Butler and Preble Counties
- ⇒ Acton Lake and Four Mile Creek are the main waterbodies in this watershed
- ⇒ Acton Lake is a 590-acre recreational reservoir in Hueston Woods State Park
- ⇒ Acton Lake was created by the damming of Four Mile Creek in 1956

You are in the Acton Lake Dam-Four Mile Creek watershed if you find yourself at...



Hueston Woods State Park

Miami University-Oxford



Acton Lake Dam

Peffer Park



City of Oxford

Black Covered Bridge



Acton Lake Dam-Four Mile Creek (ALD-FMC) Watershed Quick Facts

Located in the Eastern Corn Belt Plains with extensive corn, soybean, and livestock

Four Mile Creek Valley was likely created through glacial meltwater

Four Mile Creek is used as an agricultural water supply and an industrial water supply

The watershed is home to a myriad of species, including bald eagles, mink, foxes, saugeye, and hairy woodpeckers

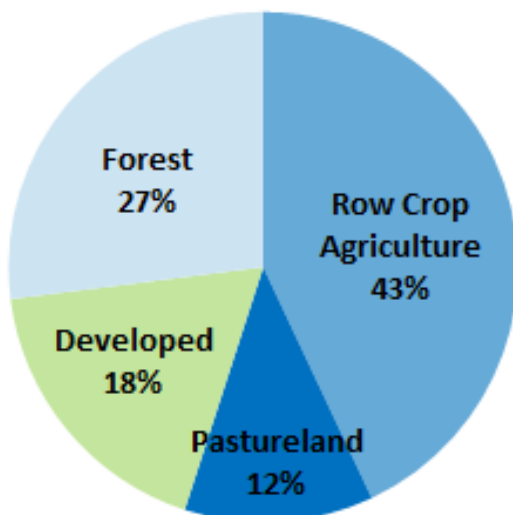
Four Mile Creek is predicted to be home to 63 native fish species

ALD-FMC Watershed has 34 freshwater wetlands

Main tributaries to Four Mile Creek include Collins Creek, Harkers Run, and Lick Run



Land Use



Point vs. Nonpoint Source Pollution in the ALD-FMC Watershed

Point source pollution:

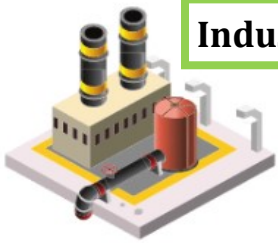
- Easy to pinpoint and can be traced back to a single source
- These sources directly discharge into waterways and are usually regulated at the state and federal level
- Some examples are wastewater treatment plants and industrial plants

Nonpoint source pollution:

- More difficult to pinpoint and comes from several sources
- Tricky to regulate and monitor
- Some examples are agricultural runoff and stormwater runoff from urban and suburban areas

Point Source

Industrial pollution



Wastewater discharge

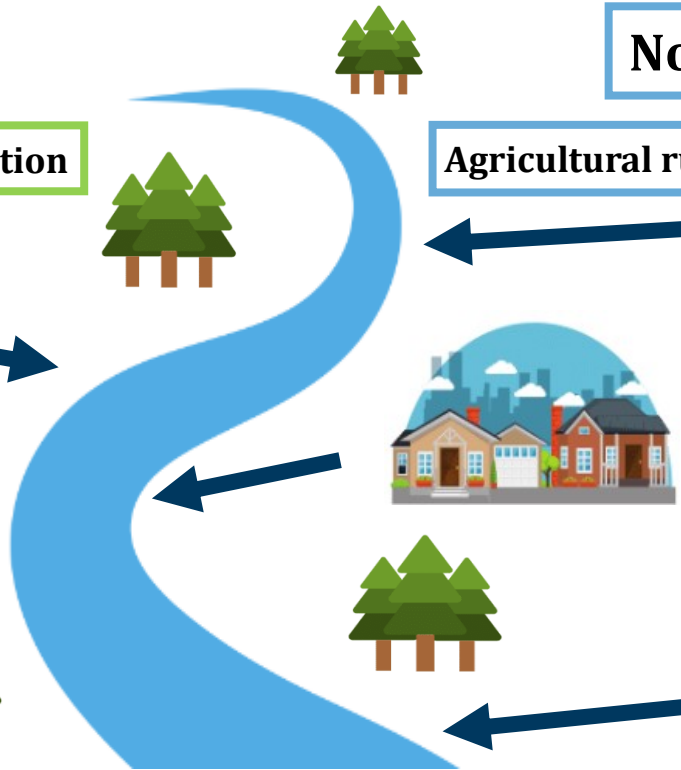


Nonpoint Source

Agricultural runoff



Urban runoff



ALD-FMC Watershed Pollution Sources

- ⇒ Stream erosion along Four Mile and Collins Creek
- ⇒ Lowhead dams along Four Mile Creek
- ⇒ Stormwater runoff from urban areas like the City of Oxford
- ⇒ Failing septic systems
- ⇒ Agricultural runoff
- ⇒ Wastewater treatment plant outflow



ALD-FMC Watershed Impairments

Impacts on Water Chemistry, Habitat, and Biology



Lowhead dams on Four Mile block fish passage and lead to sediment build up, smothering important habitat

Heavy metals from stormwater runoff into Collins Creek can be toxic to aquatic life

Erosion along streambanks in Collins Creek and Four Mile Creek can lead to excess sediment and pollutants in streams



Excess phosphorus from wastewater treatment plant outflows can be harmful to fish and bug communities

Sediment and nutrient accumulation in Acton Lake leads to low dissolved oxygen and high ammonia in the outflow

Nutrient runoff from agricultural fields can cause algal blooms and hypereutrophic, or nutrient rich, conditions

What can you do?

Be cautious about your use of fertilizers, pesticides, and any other chemicals

Clean up your pet waste, lawn clippings, and trash

Implement rain gardens and rain barrels to help reduce stormwater runoff

If you live next to a stream, keep a riparian buffer with plants and trees along the streambank



For more information, visit the Butler Soil and Water Conservation District website and check out the watershed inventory page

1802 Princeton Road, Suite 300
Hamilton, OH 45011
513-887-3720
www.butlerswcd.org

