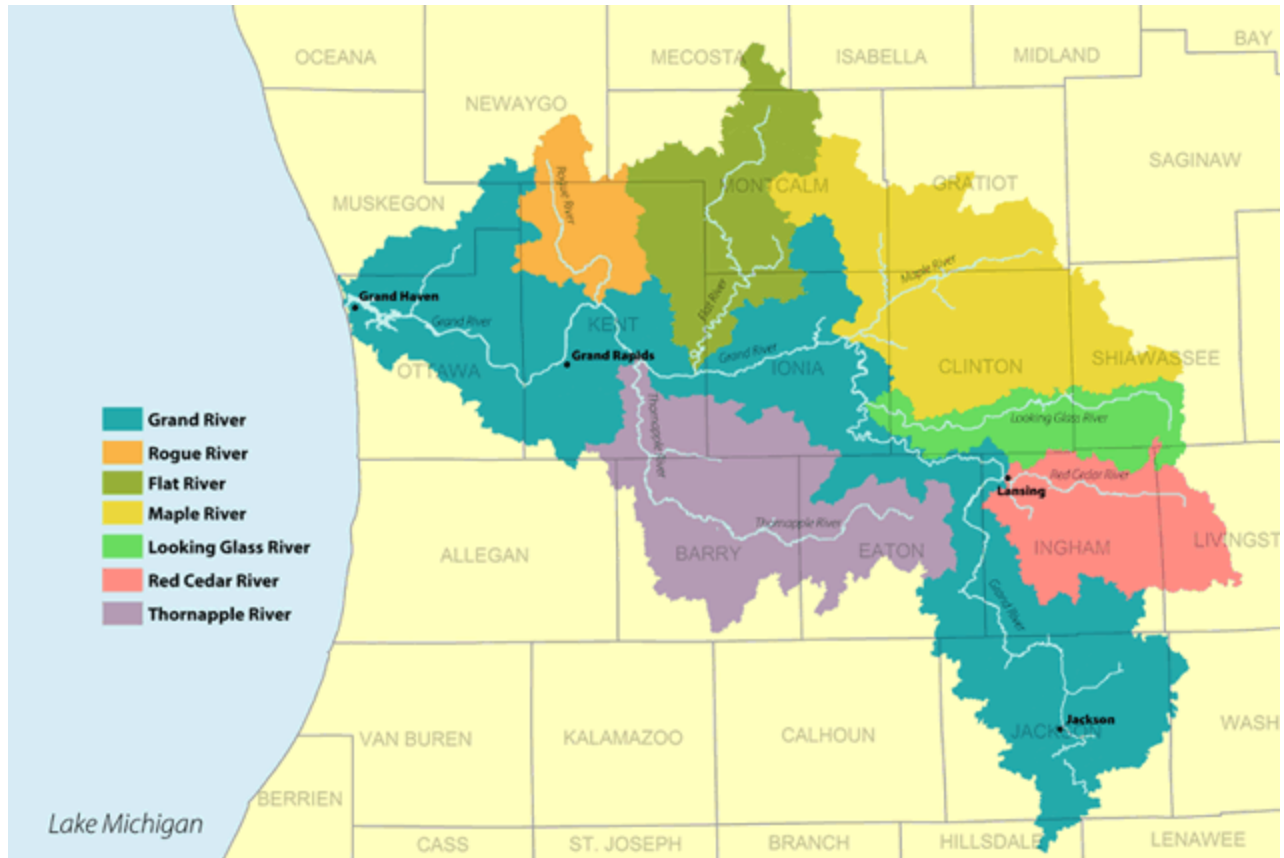


## The Grand River Watershed - Michigan

### Grand River Watershed Facts

- The Grand River is 260 miles and is Michigan's longest
- The Grand River watershed is the second largest drainage in MI (next to Saginaw River watershed) and comprises 13% of the entire Lake Michigan drainage basin
- The Grand River watershed has several major tributaries, the Thornapple, the Maple, and the Flat Rivers, and many minor tributaries, including Sycamore Creek, the Looking Glass, the Rogue, and the Red Cedar Rivers. **Can you find the rivers on the map?**
- The Grand River watershed starts in Hillsdale County and ends in Grand Haven on Lake Michigan
- The Grand River system has extensive wetlands, bogs, and upland and river systems
- Land use within the watershed is approximately 53 percent agricultural, 27 percent urban, and 20 percent forested
- Issues within the watershed include nutrients, increased turbidity, and reduced water quality within the Grand River system



A watershed is an area of land that catches rain and snow and is drained by a system of wetlands, streams, lakes, ponds, and rivers. The Grand River Watershed is the second largest drainage system in the State of Michigan, second only to the Saginaw River Watershed in size, and comprises 13% of the entire Lake Michigan drainage basin. The Grand River watershed has a drainage area of 5,572 square miles (14,431 square km) and it drains portions of Muskegon, Newaygo, Mecosta, Montcalm, Gratiot, Ottawa, Kent, Ionia, Clinton, Shiawassee, Barry, Eaton, Ingham, Livingston, and Jackson counties in Michigan. The elevation of the watershed ranges from 1,260 feet (384 meters) in the uplands to 577 feet

(176 meters) at its mouth. The river basin is approximately 135 miles (217 km) long and 70 miles (113 km) wide (see above map). *FACT -Land use within the watershed is approximately 53% agricultural, 27% urban & 20 % forested.*

The Grand River watershed includes the Grand River, which at 260 miles is Michigan's longest. It has several major tributaries, the Thornapple, the Maple, and the Flat Rivers, and many minor tributaries, including Sycamore Creek and the Looking Glass, the Rogue, and the Red Cedar Rivers. The main stream rises in Hillsdale County and flows through Ionia to Grand Rapids and to its outlet at Grand Haven on Lake Michigan. The Red Cedar joins in Lansing. The major tributaries enter the Grand River near Ionia in the relatively flat area west of Grand Rapids. The environmental significance of the Grand River system, particularly its headwaters and upper tributaries, is critically important for both Lake Michigan and the entire Great Lakes region. It features extensive wetlands such as the Chandler marsh system that reaches from East Lansing to Bath/Laingsburg, bogs, and upland and river systems. It also boasts aquatic and terrestrial biodiversity that is unique among Michigan's inland areas. The upper Grand River watershed connects rural, upstream agricultural communities with sprawling suburban areas, diverse, industry-dotted urban zones, and Lake Michigan. Land use within the watershed is approximately 53 percent agricultural, 27 percent urban, and 20 percent forested. Issues within the watershed include nutrients, increased turbidity, and reduced water quality within the Grand River system.

*FACT -The Grand River watershed includes the Grand River, which, at 260 miles, is Michigan's longest river.*

**Grand River Watershed Questions:**

Name: \_\_\_\_\_

1. What is a watershed?

2. What is a tributary?

3. What are the major tributaries of the Grand River?

4. What are the minor tributaries of the Grand River?

5. What natural feature separates one watershed from another watershed?

6. What are three different things that can happen to precipitation as it lands on the Earth's surface?

7. What is groundwater?

8. What is a water table and how does precipitation affect it?

9. Why do tributaries flood before the main river in a watershed?

10. Why does flooding increase the risk of water pollution?

11. Explain two ways wetlands are important to a watershed.