

## **The Natural History of the Lower Grand River Watershed**

What encompasses the history of a watershed? There are two distinctive areas, anthropogenic (human-induced) events and geologic (natural) events. Exploring both sides will give you a better understanding of the Lower Grand River Watershed's current condition, where it may be headed, and how the events of the past influence the Lower Grand Watershed of today.

The Geologic time scale is used to date the formation of the earth and all of its inhabitants. In the Cenozoic era, the boundary between the periods of Pliocene and Pleistocene has been dated with a range of 1.6 – 1.8 million years ago. The Pleistocene is simplified as the time of glaciation, a world covered in ice. During this time, the land that is now the State of Michigan experienced a push from the north by a sheet of ice. This ice sheet advanced and retreated many times, ripping up the crust, creating drainages, and depositing the torn earth along with its movement. One of these drainages is thought to be the ancestral Grand River. It is thought to have been much wider than the Grand River we know today. Eventually the rush of ice, water, and sediment came to a standstill. The Grand River Watershed was left behind.

The Pleistocene-Holocene boundary marks the end of the last rapid rise of sea level. This occurred on all parts of earth between 6,000-8,000 years ago.

The Lower Grand River Watershed is combined with the Upper and Middle Grand River Watersheds to bisect the state of Michigan. The entire Grand River watershed is one of the largest watersheds in the state and empties into Lake Michigan at the City of Grand Haven. The Lower Grand portion of the Grand River Watershed is second in size only to the Muskegon River Watershed. The Lower Grand River Watershed covers 3,020 square miles of the 5,572 square miles of the entire Grand River Watershed. The whole watershed is part of the Great Lakes Basin, a much larger watershed that includes all five of the Great Lakes.

### **Links To Information On The Lower Grand River Watershed:**

- **[Lower Grand River Project](#)**
- **[Grand River Flood of 1904](#)**
- **[Make Michigan Maps](#)**
- **[Geologic Glacial Map of Michigan](#)**
- **[Mineralogical Map of Michigan](#)**