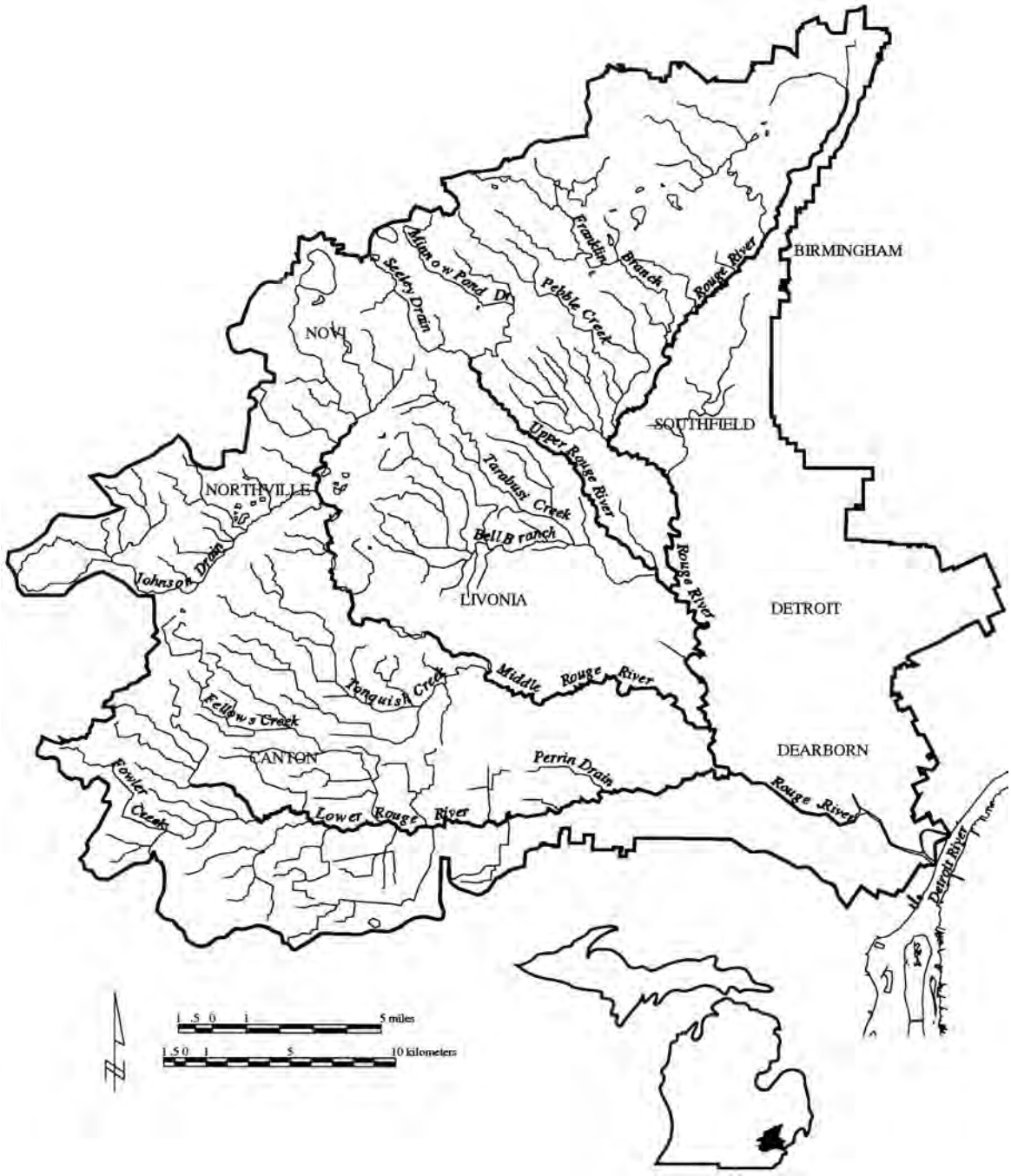

Figure 1.–The Rouge River watershed in Southeastern Michigan. Major reaches include the mainstem and Upper, Middle, and Lower branches. Map from Rouge Program Office.

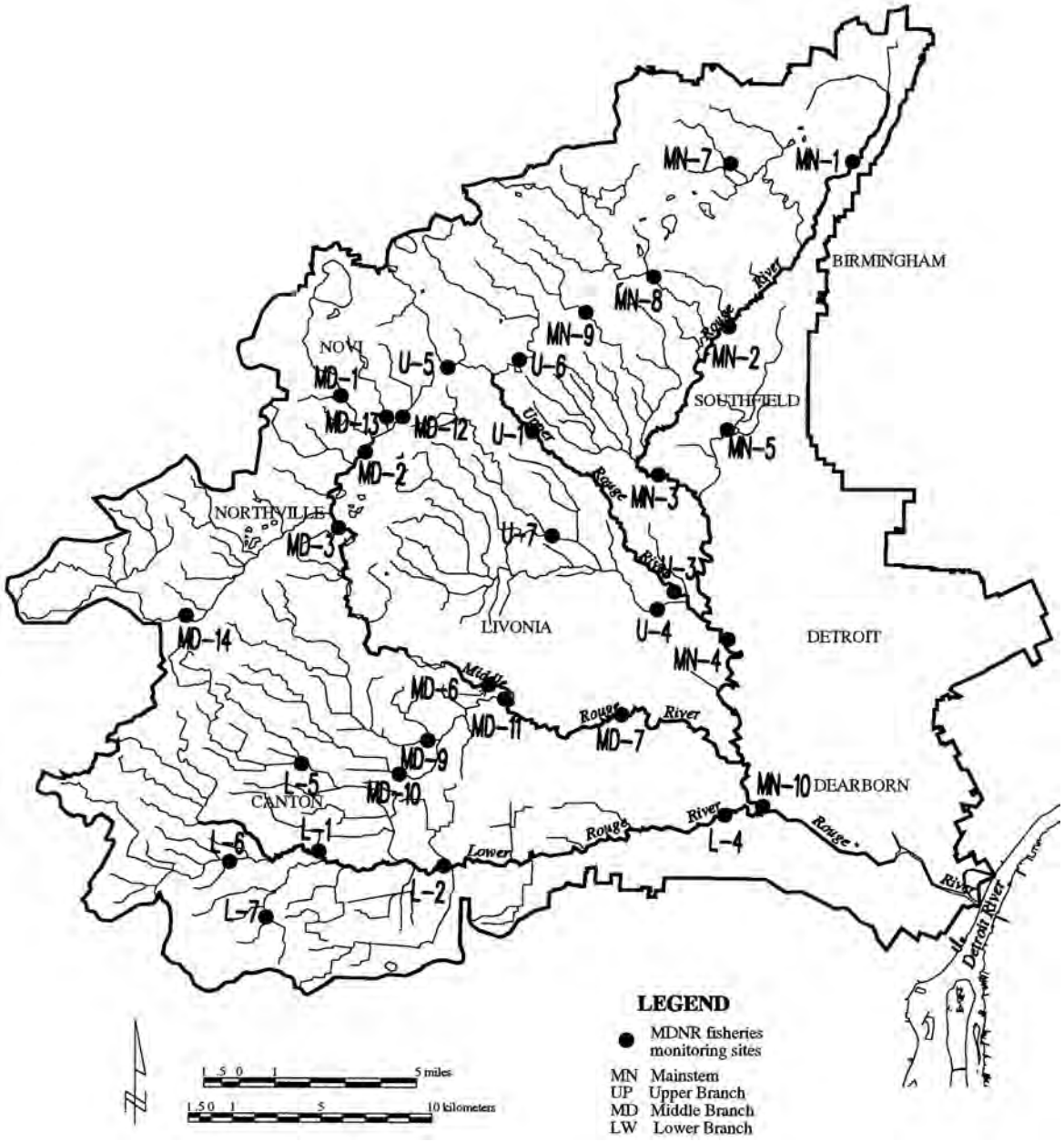

Figure 2.–Fish sampling locations surveyed in 1995. (Michigan Department of Natural Resources, Fisheries Division). Map from Rouge Program Office.

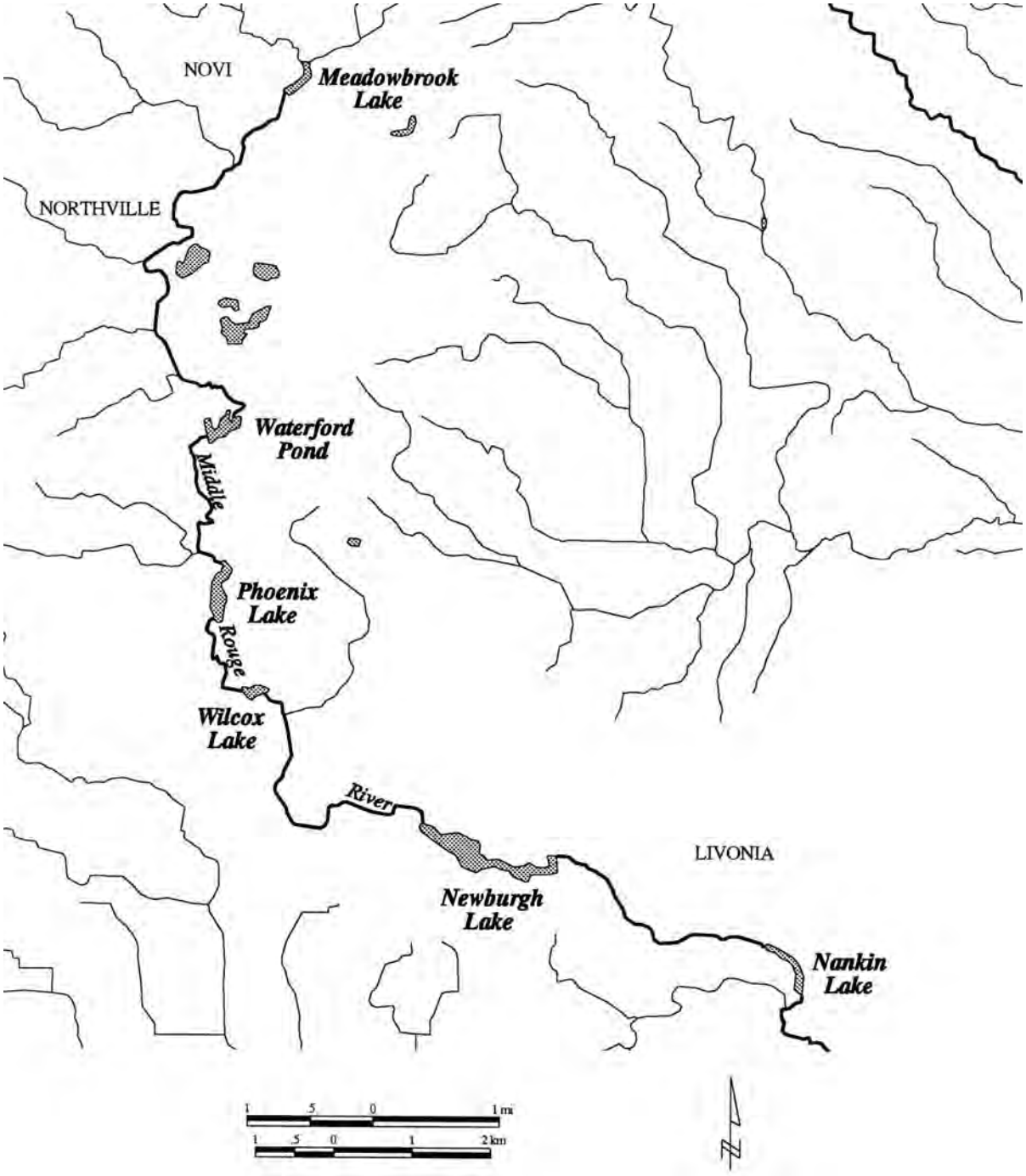

Figure 3.–Major impoundments located on the Middle Rouge River. Map from Rouge Program Office.

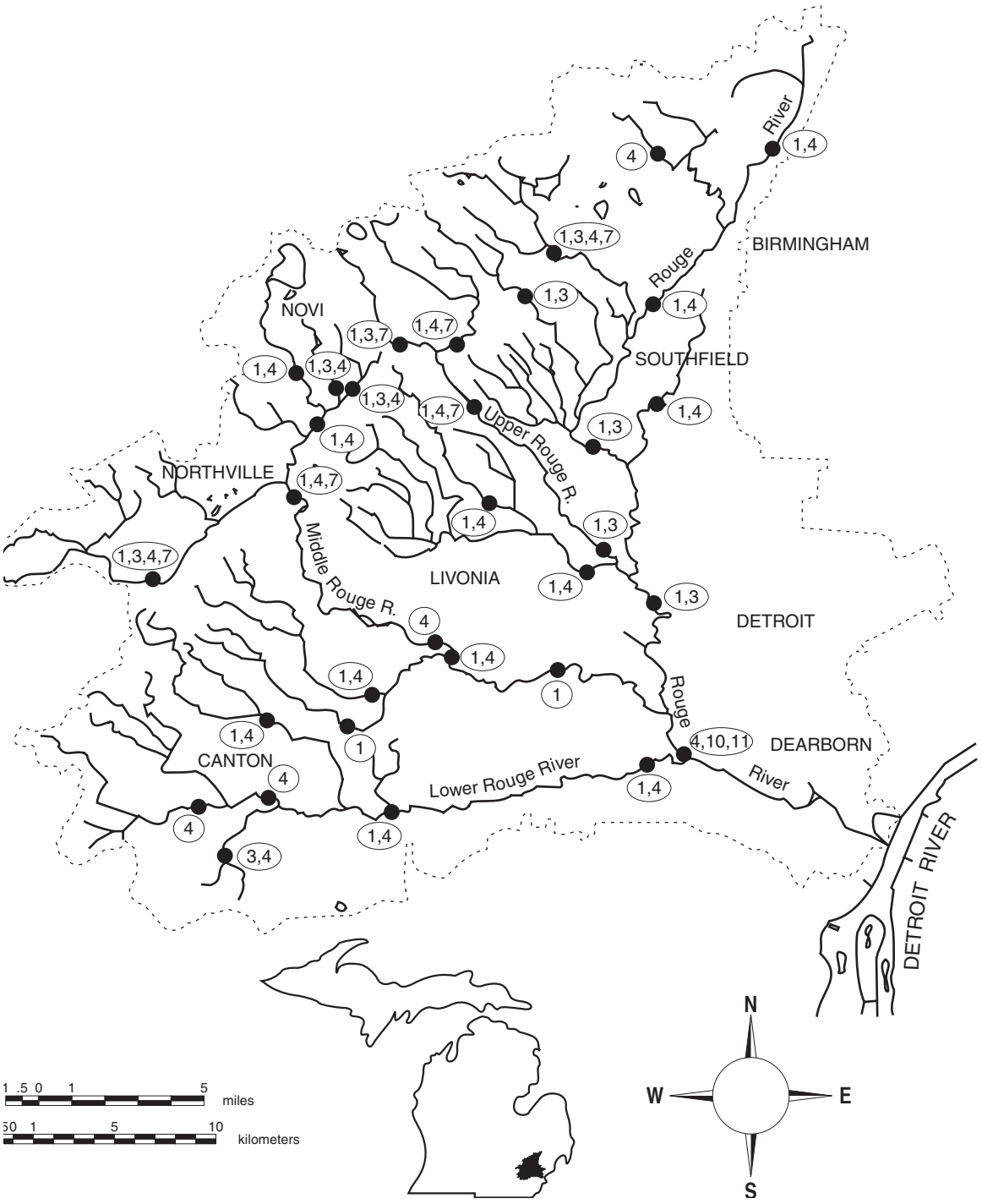

Figure 4.–Fish communities within the Rouge River as defined by Michigan Rivers Inventory Project (T. Zorn and P. Seelbach, Michigan Department of Natural Resources, Fisheries Division, preliminary data.). See Table 6 for group definitions.

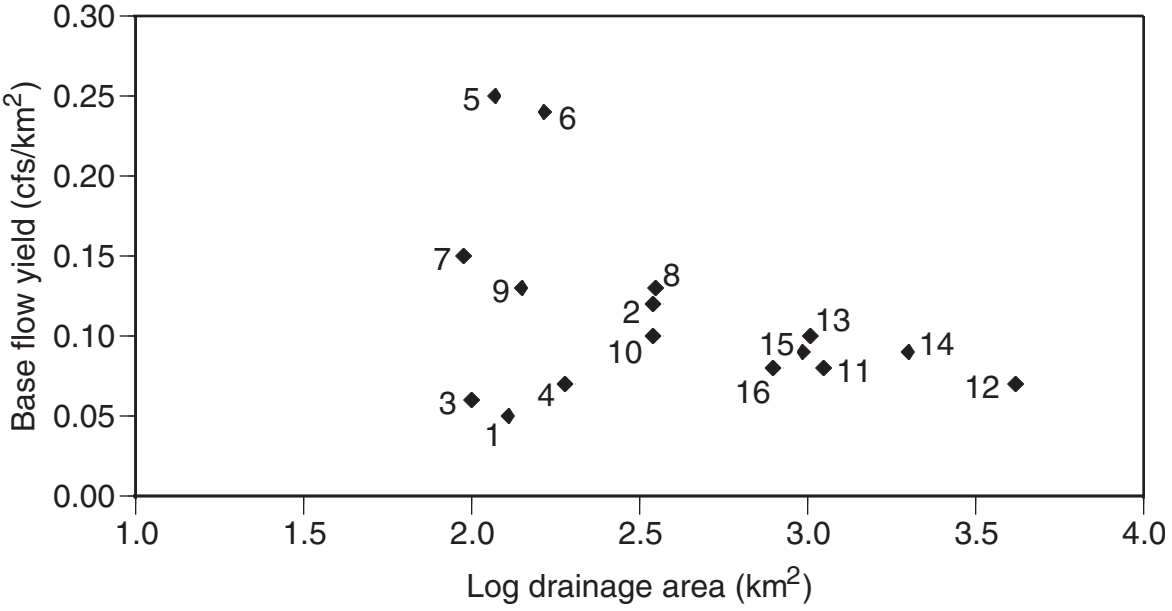

Figure 5a.–Statewide fish species associations plotted against primary watershed characteristics.

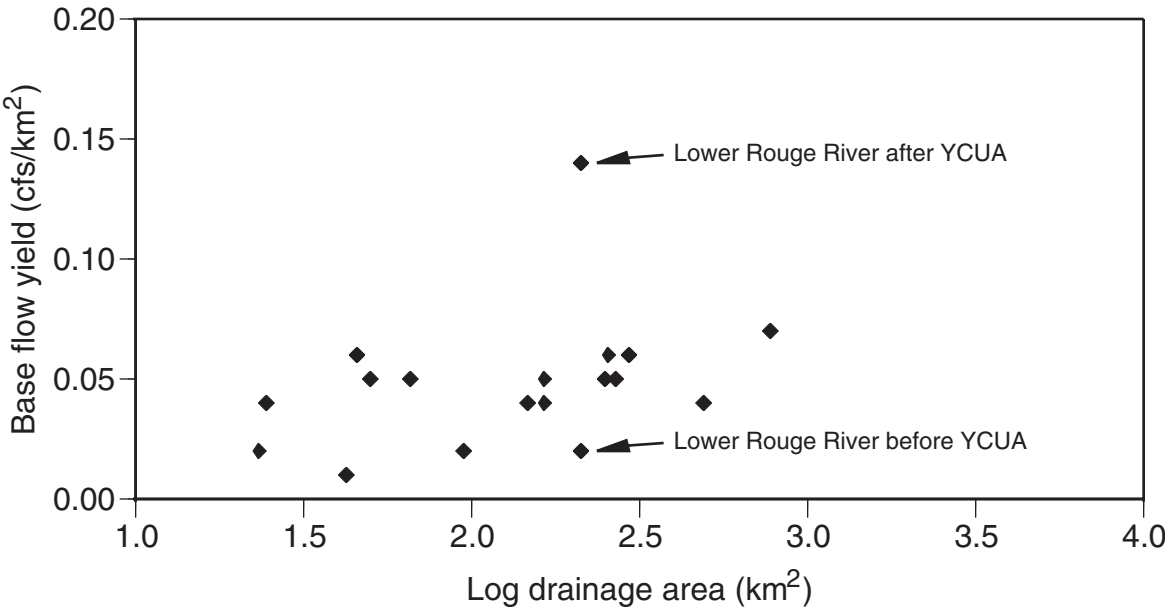

Figure 5b.–Primary watershed characteristics of sites in the Rouge River.

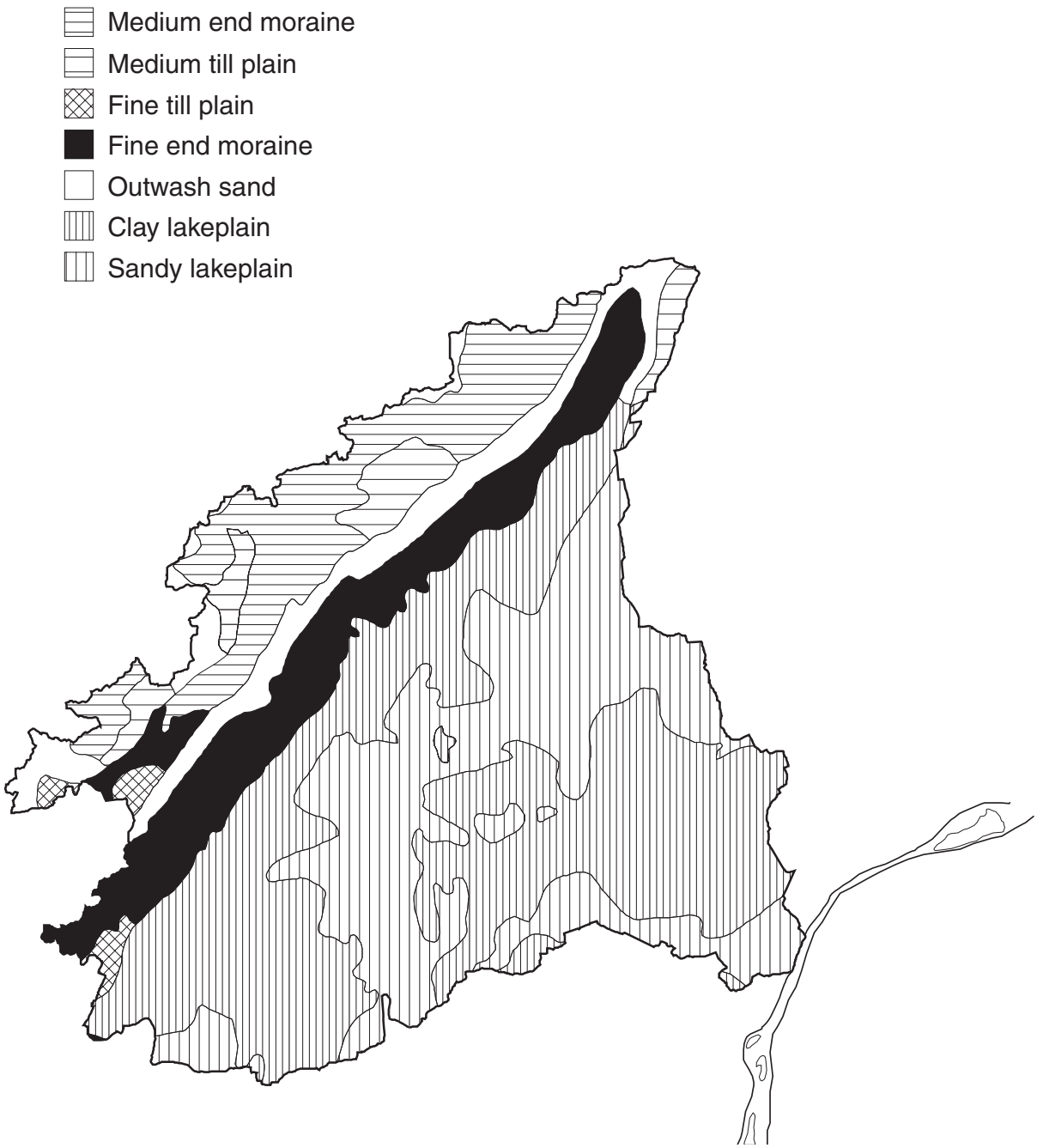

Figure 6.–Surficial geology map of the Rouge River watershed.

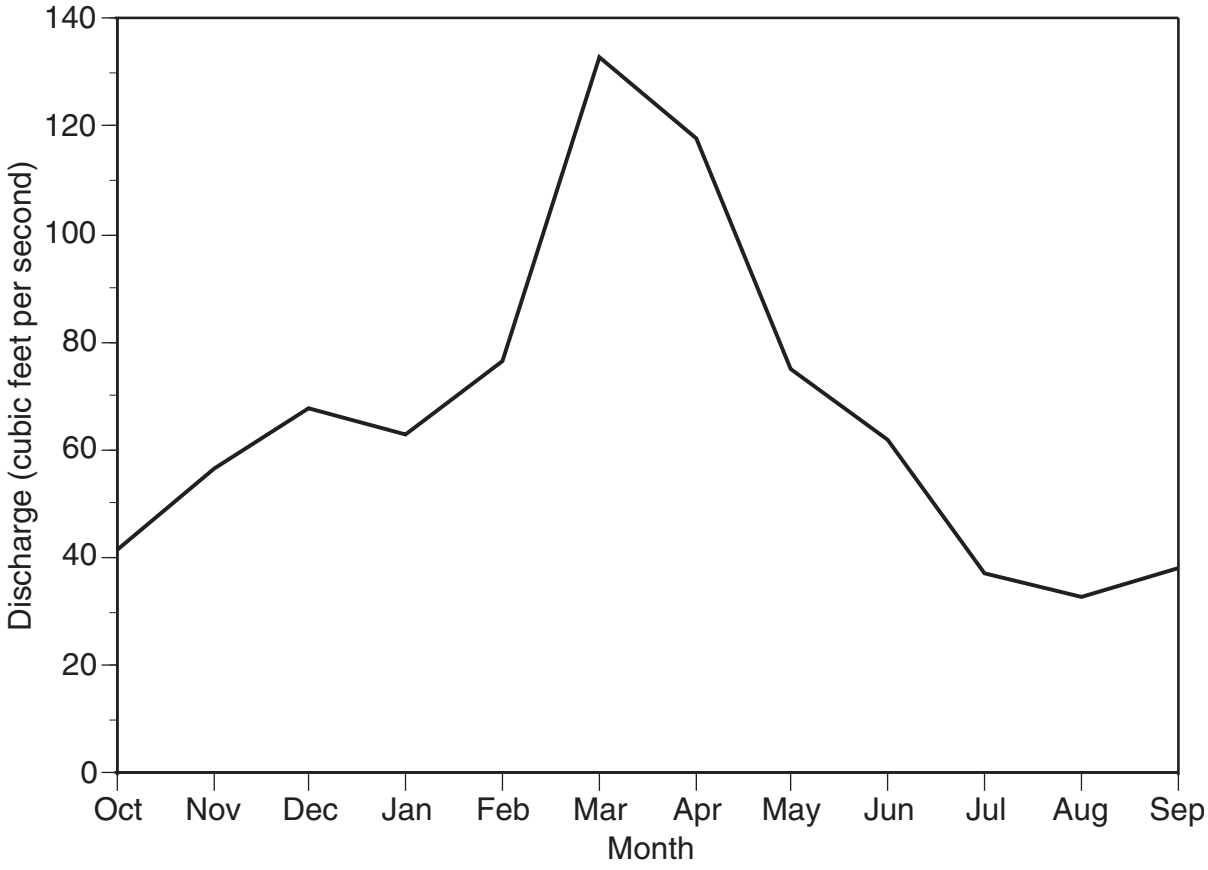

Figure 7.–Mean monthly discharge (cfs) for Rouge River in Southfield for period of record (1958-94). Data from: United States Geological Survey.

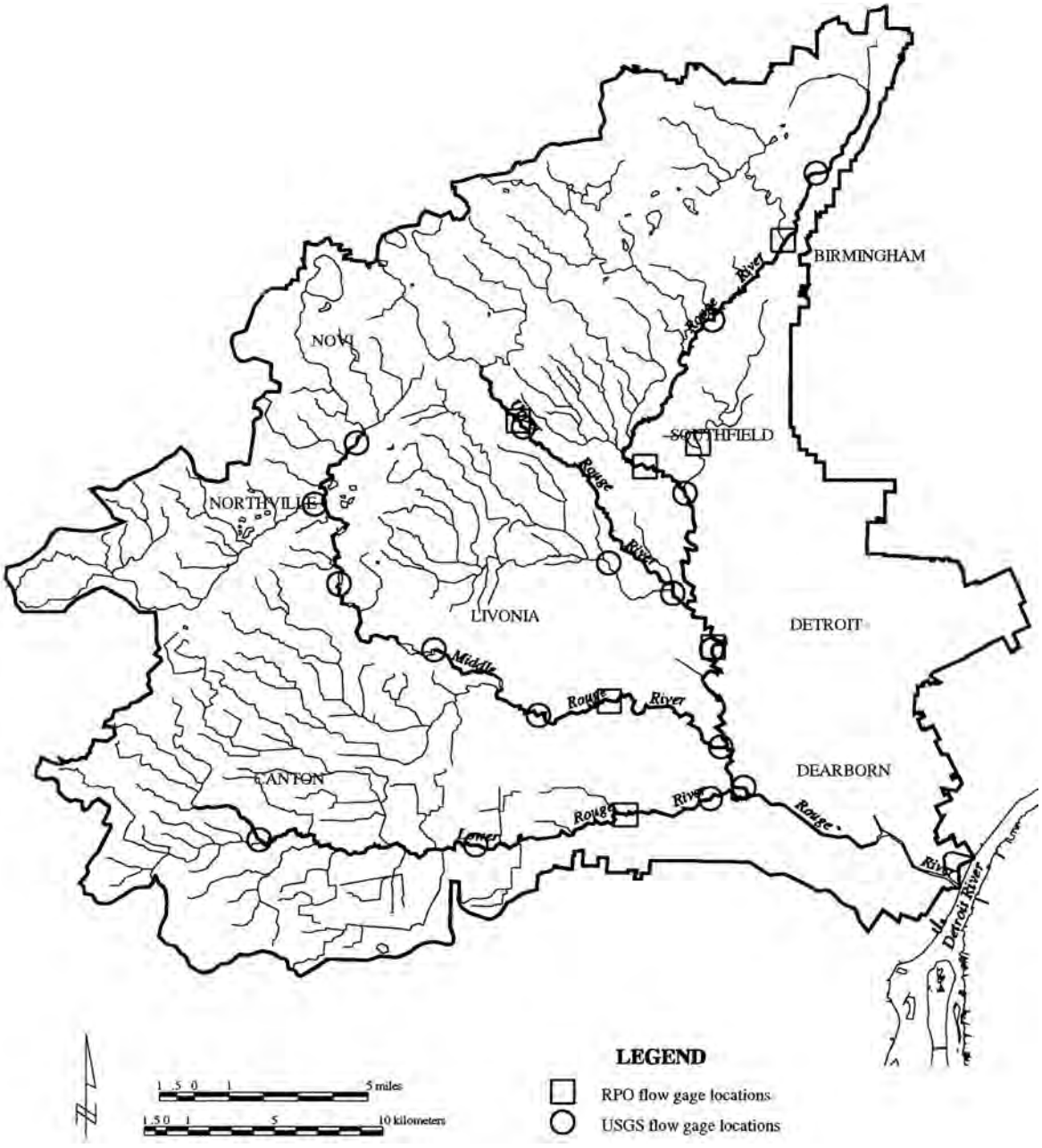

Figure 8.–Location of Rouge Program Office and United States Geological Survey flow gauge stations in the Rouge River. Map from Rouge Program Office.

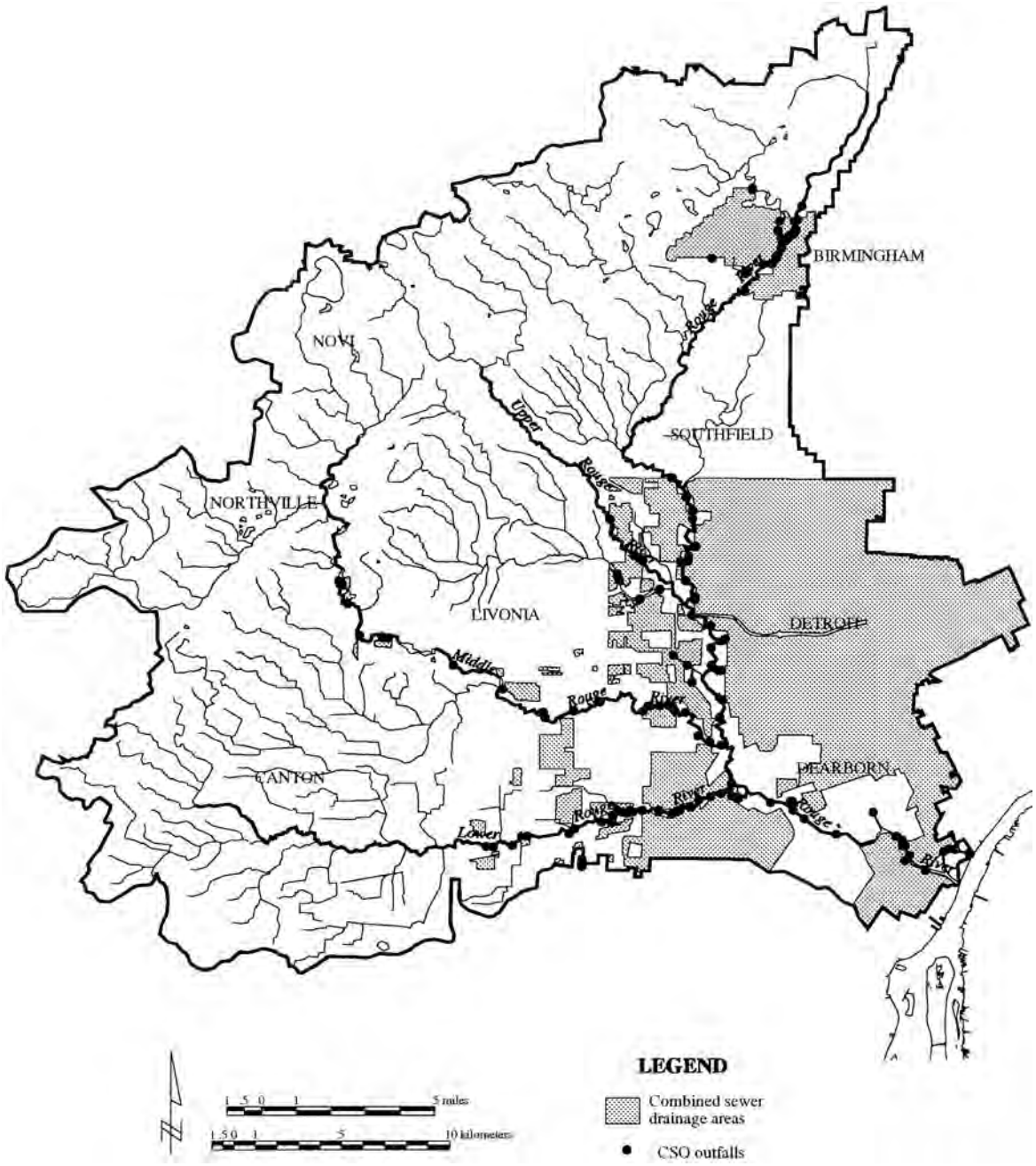

Figure 9.–Location of Combined Sewer Overflows (CSOs) in the Rouge River watershed and their service areas. Map and data from Rouge Program Office.

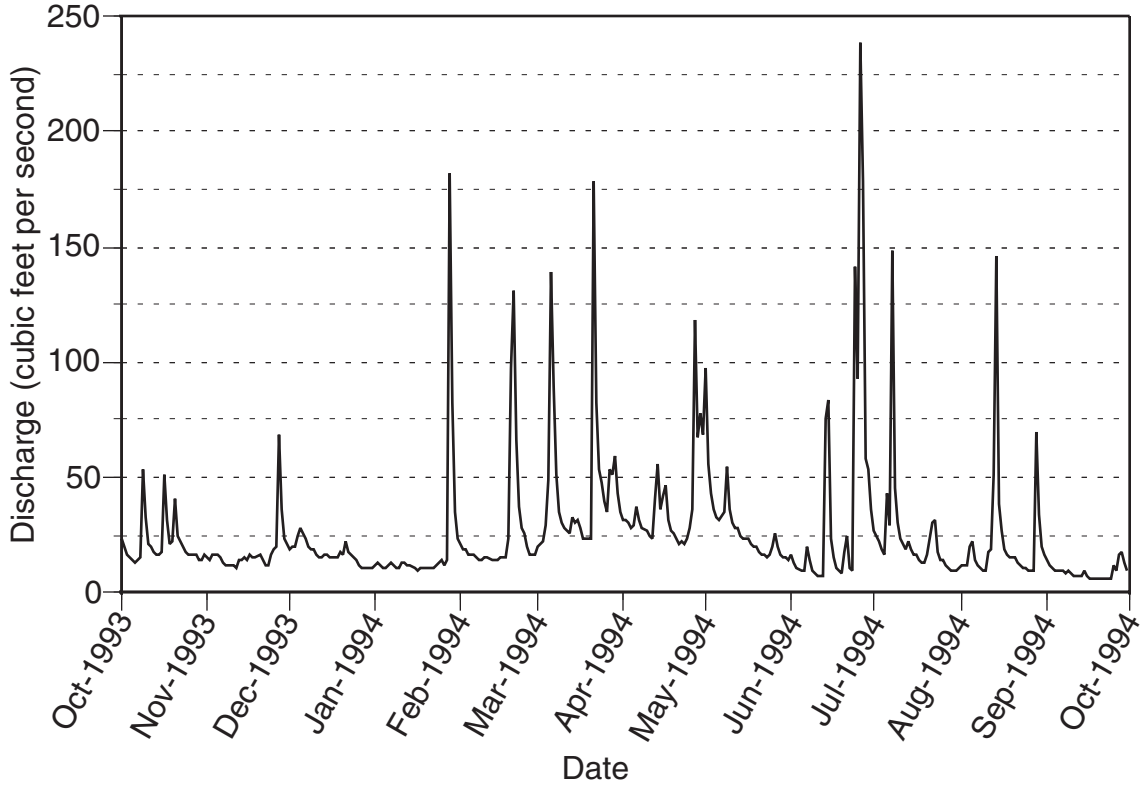

Figure 10.–Mean daily discharge of Rouge River in Birmingham for water year 1994. Data from: United States Geological Survey.

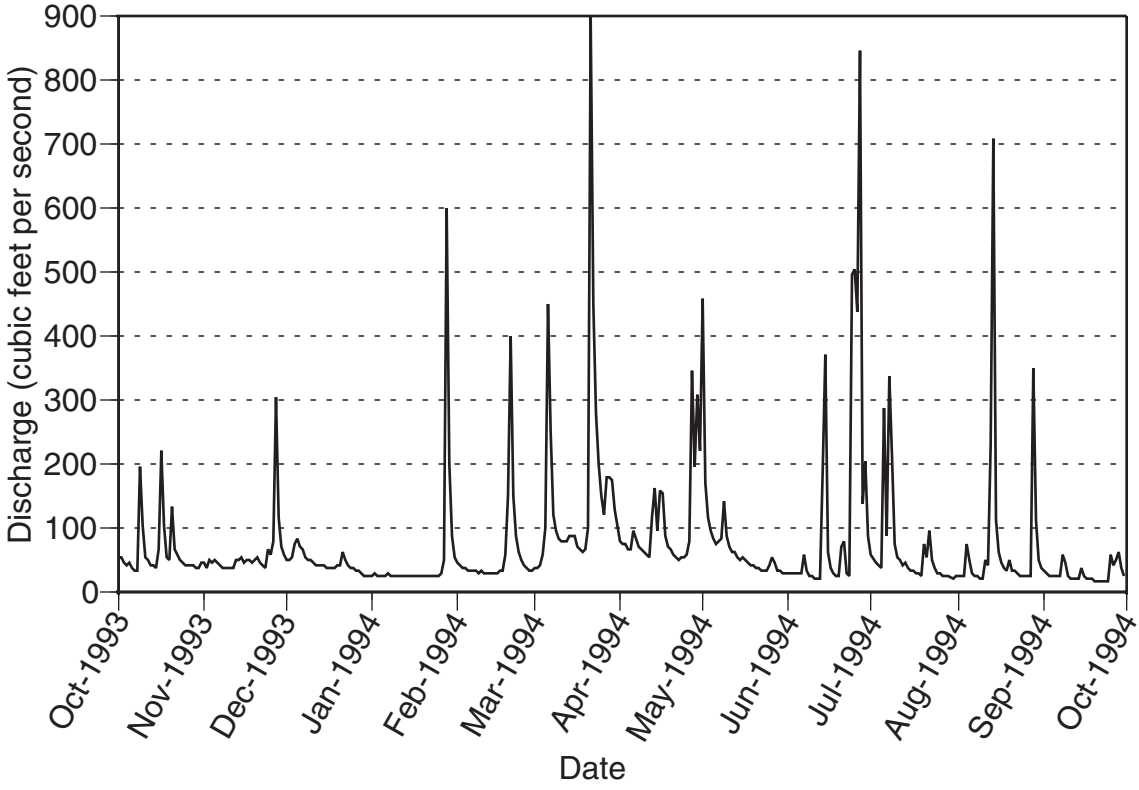

Figure 11.–Mean daily discharge of Rouge River in Southfield for water year 1994. Data from: United States Geological Survey.

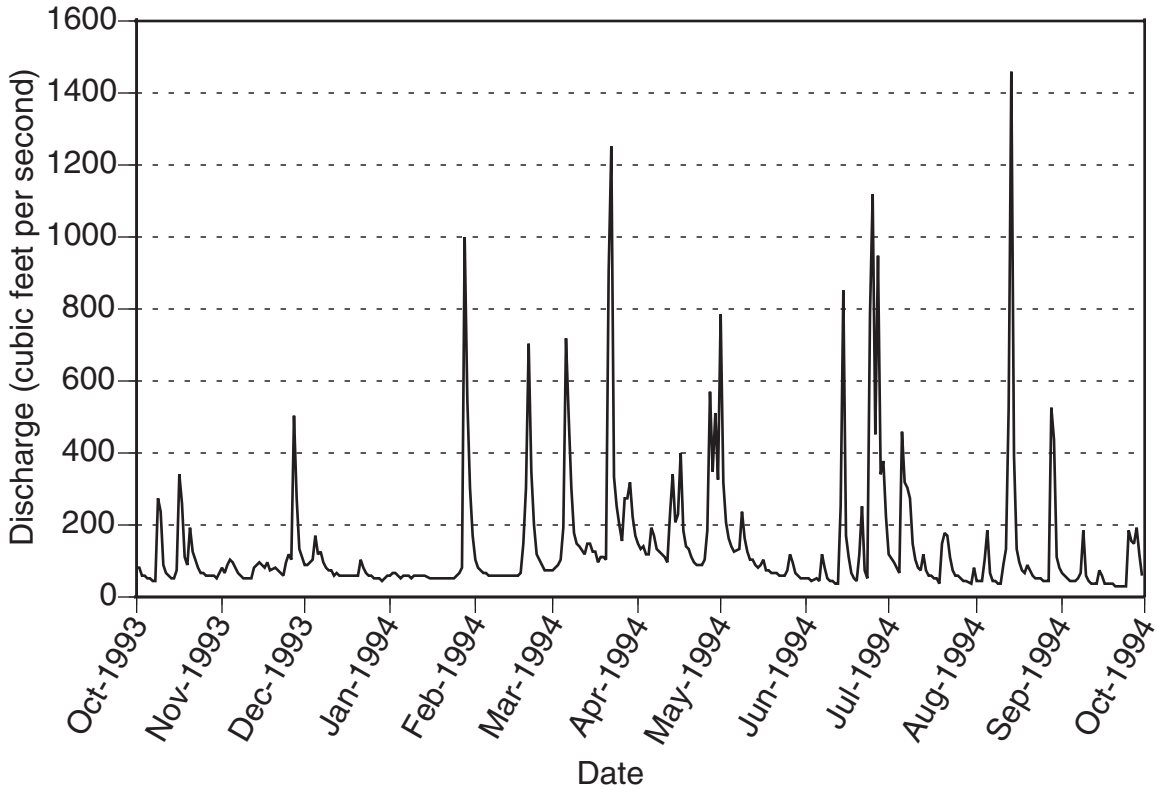

Figure 12.–Mean daily discharge of Rouge River in Detroit for water year 1994. Data from: United States Geological Survey.

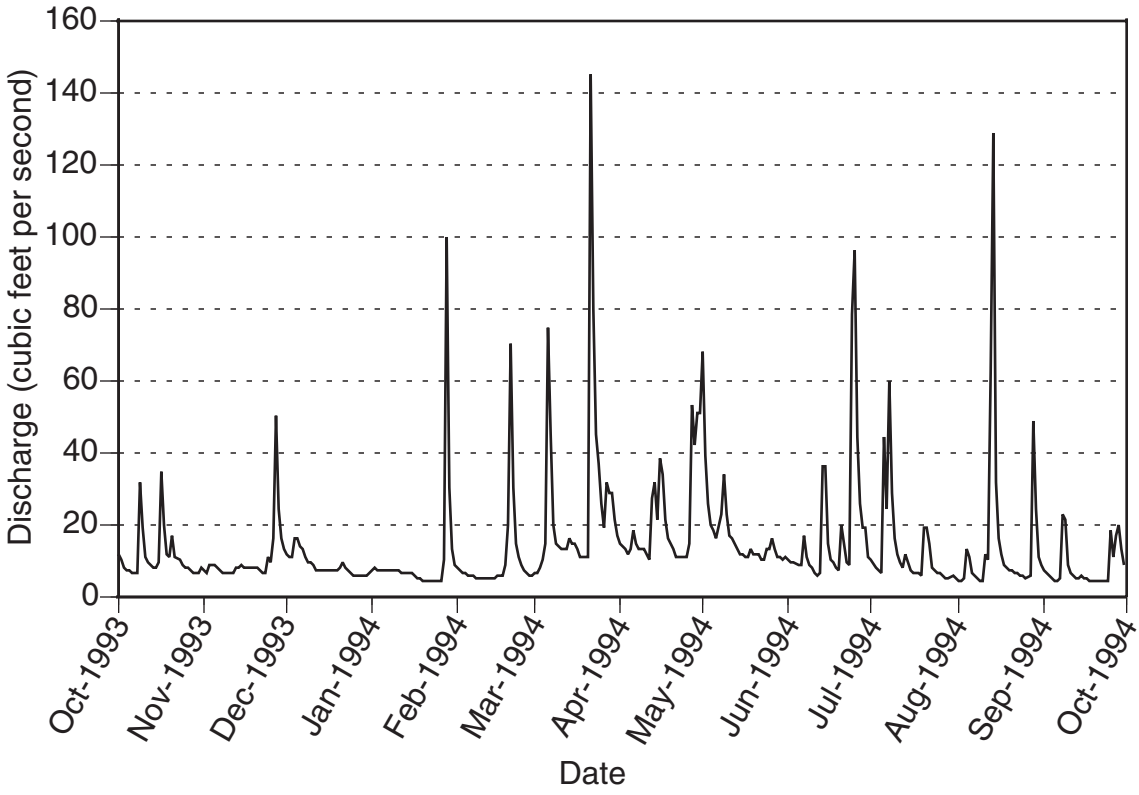

Figure 13.–Mean daily discharge of Upper Rouge River in Farmington for water year 1994. Data from: United States Geological Survey.

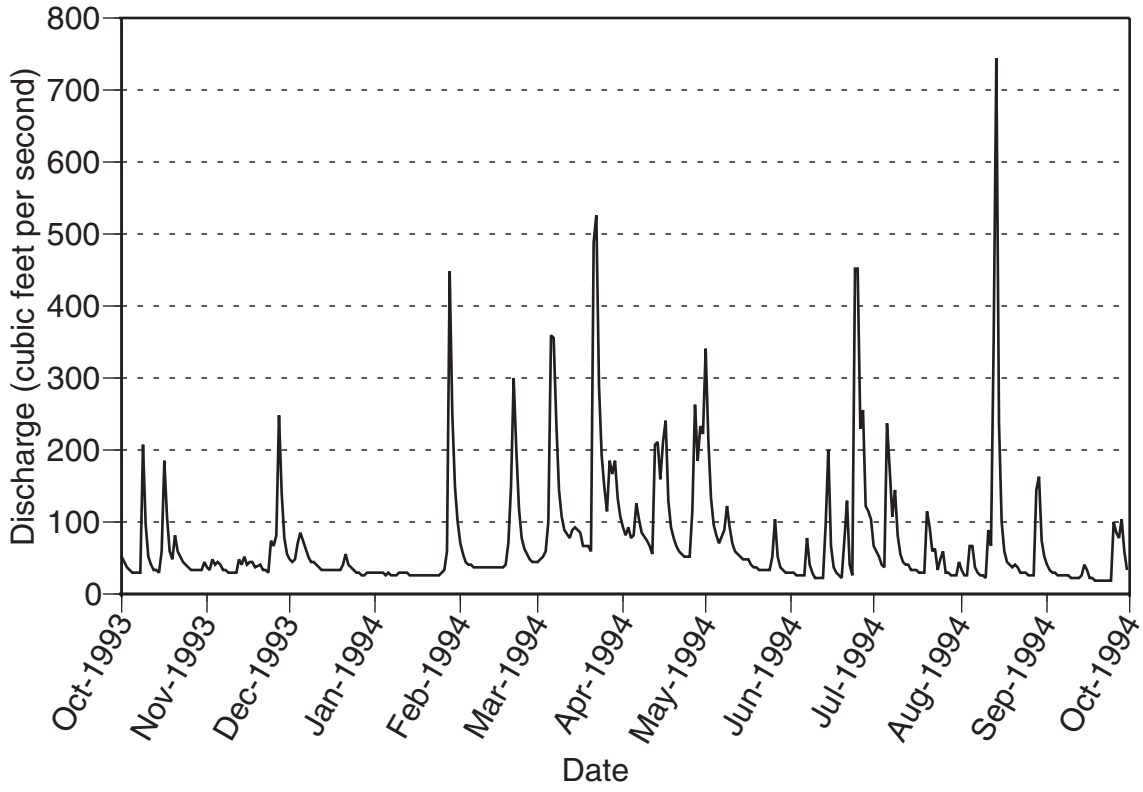

Figure 14.–Mean daily discharge of Middle Rouge River near Garden City for water year 1994. Data from: United States Geological Survey.

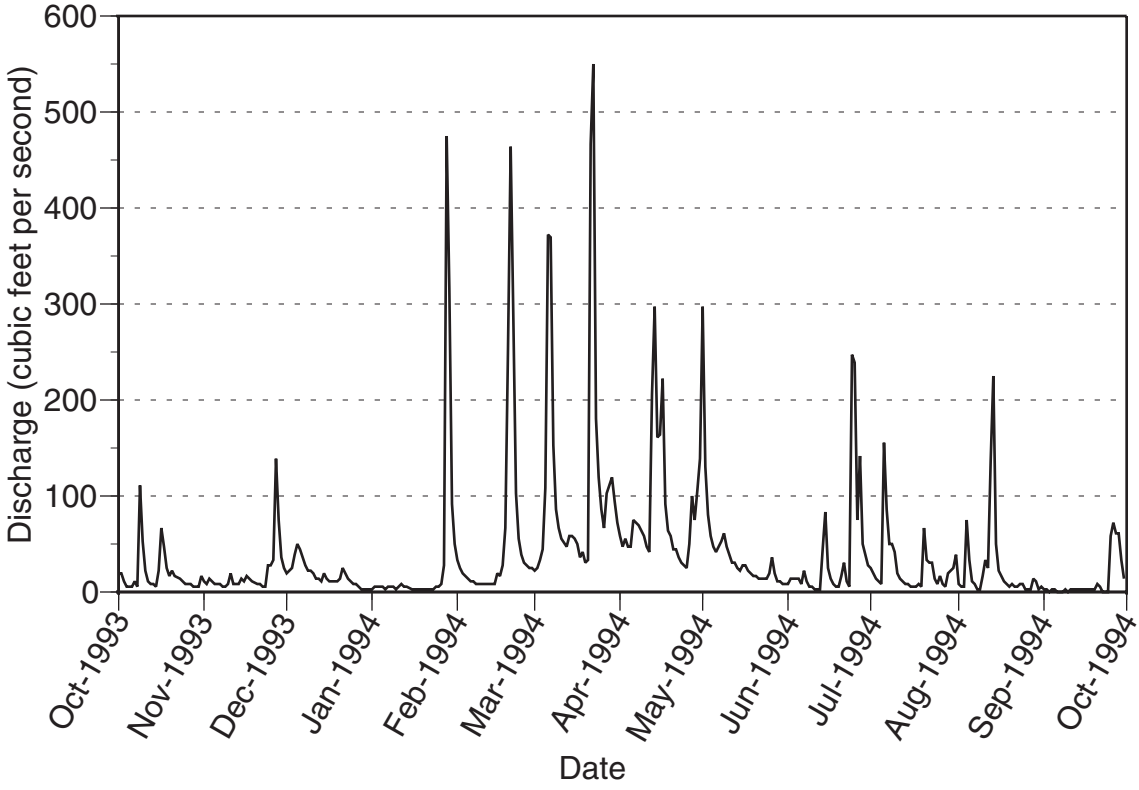

Figure 15.–Mean daily discharge of Lower River in Inkster for water year 1994. Data from: United States Geological Survey.

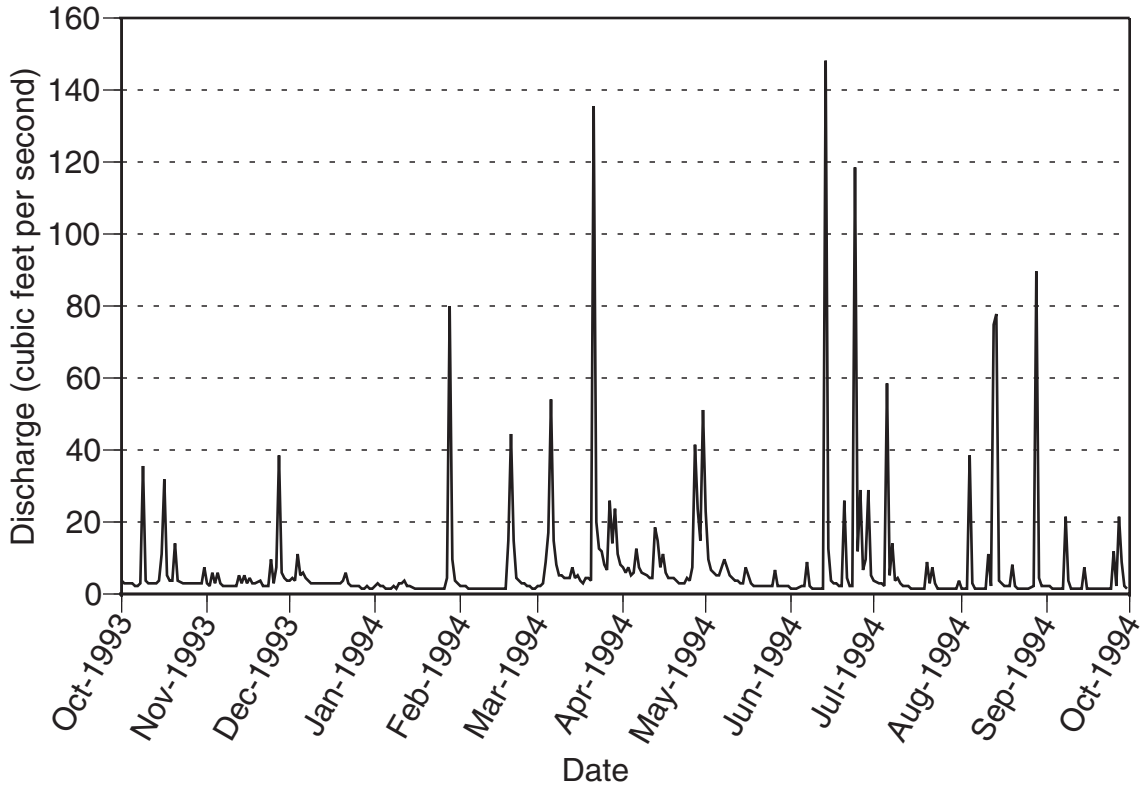

Figure 16.–Mean daily discharge of Evans Ditch in Southfield for water year 1994. Data from: United States Geological Survey.

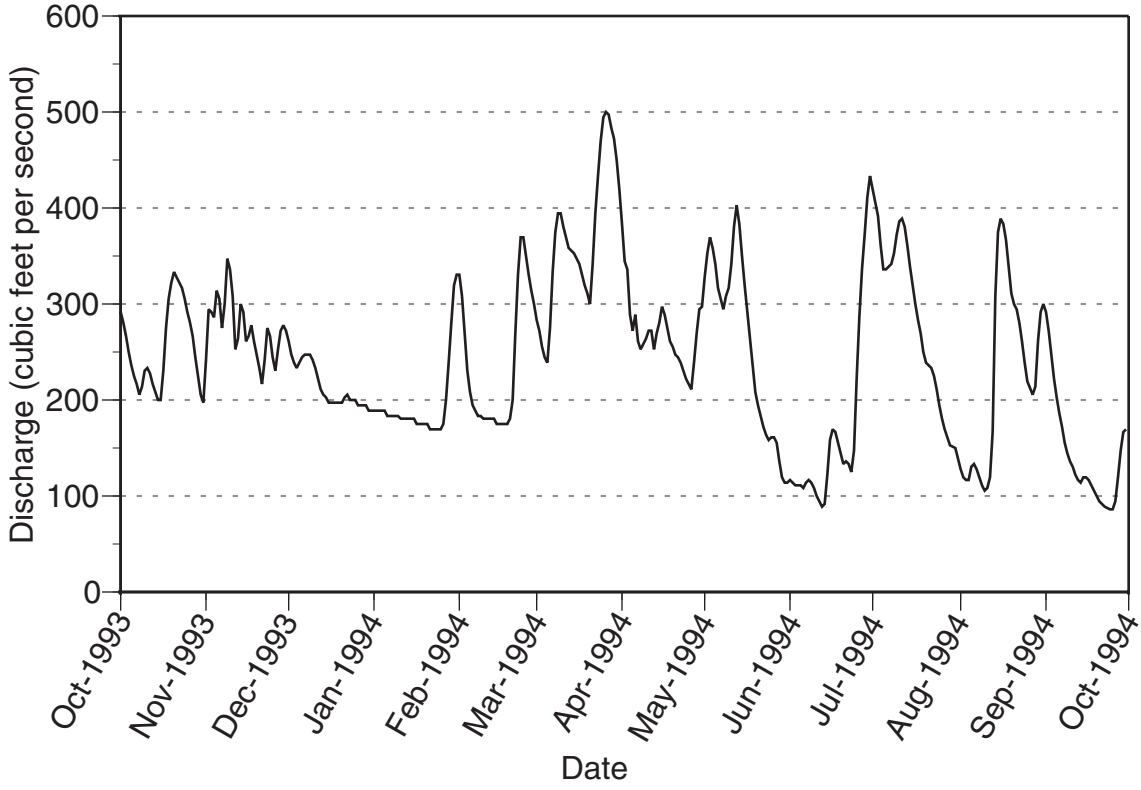

Figure 17.–Mean daily discharge of Huron River near Hamburg for water year 1994. Data from: United States Geological Survey.

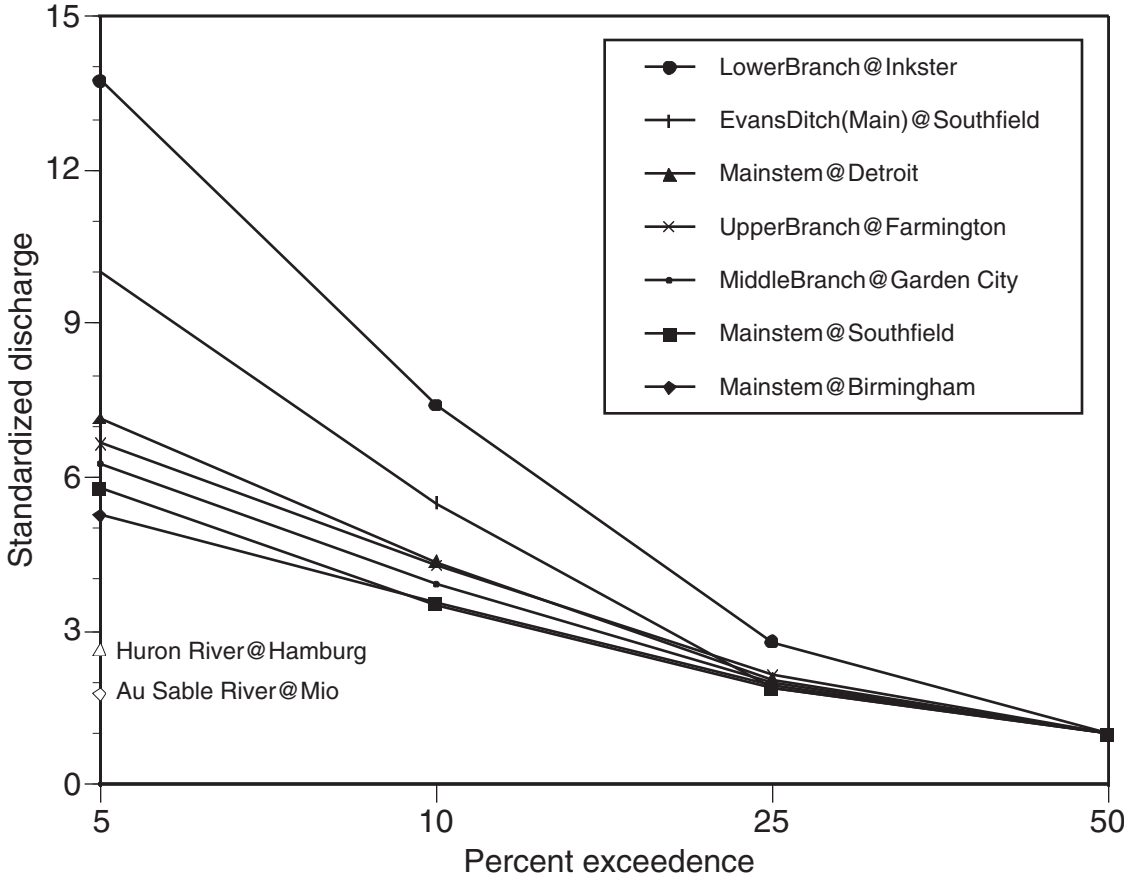

Figure 18.–Standardized high flow exceedence curves for three main branches and mainstem of Rouge River and Evans Ditch. Information from United States Geological Survey gauge stations for period of record. Standardized discharge is discharge/median (50%) discharge. Shown for comparison are neighboring Huron River and extremely stable, groundwater fed Au Sable River.

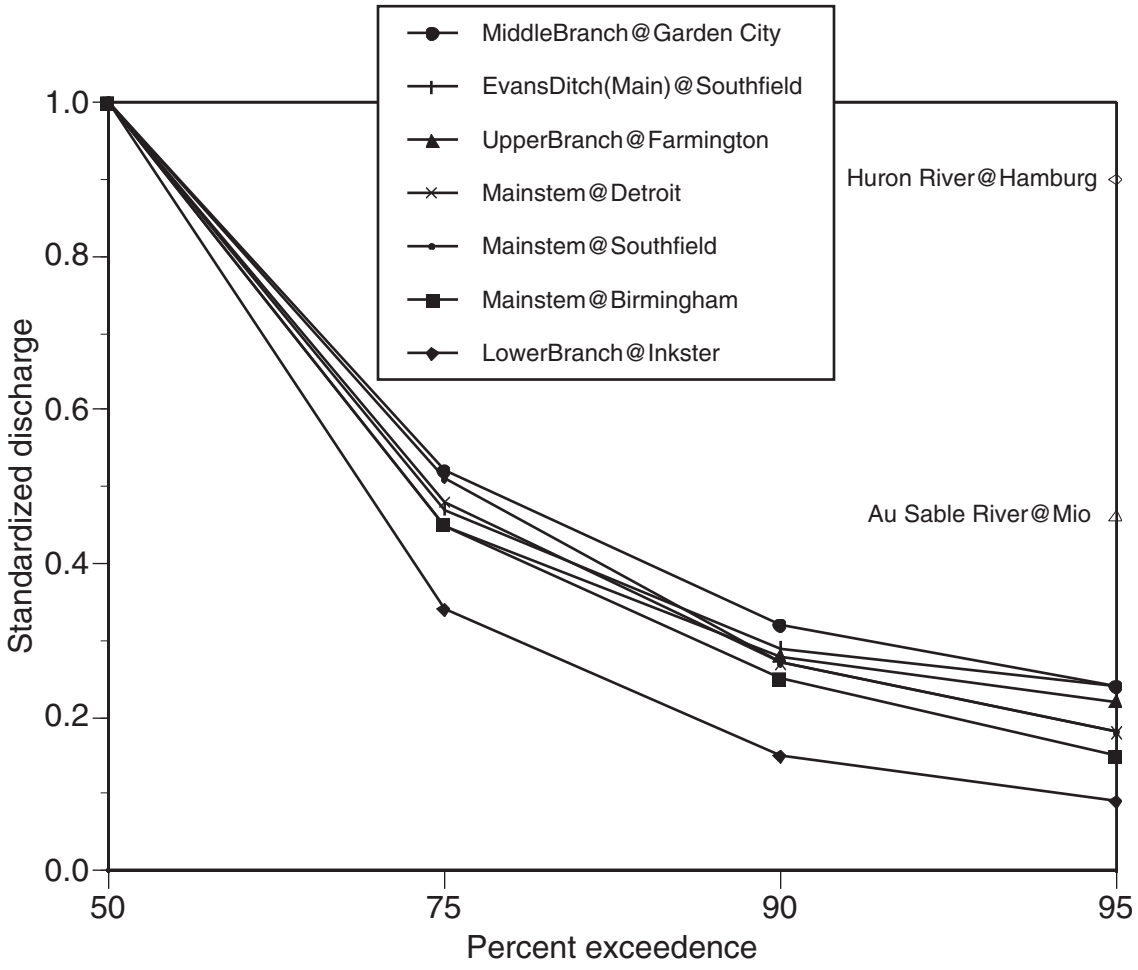

Figure 19.–Standardized low flow exceedence curves for three main branches and mainstem of Rouge River and Evans Ditch. Information from United States Geological Survey gauge stations for period of record. Standardized discharge is discharge/median (50%) discharge. Shown for comparison are neighboring Huron River and extremely stable, groundwater fed Au Sable River.

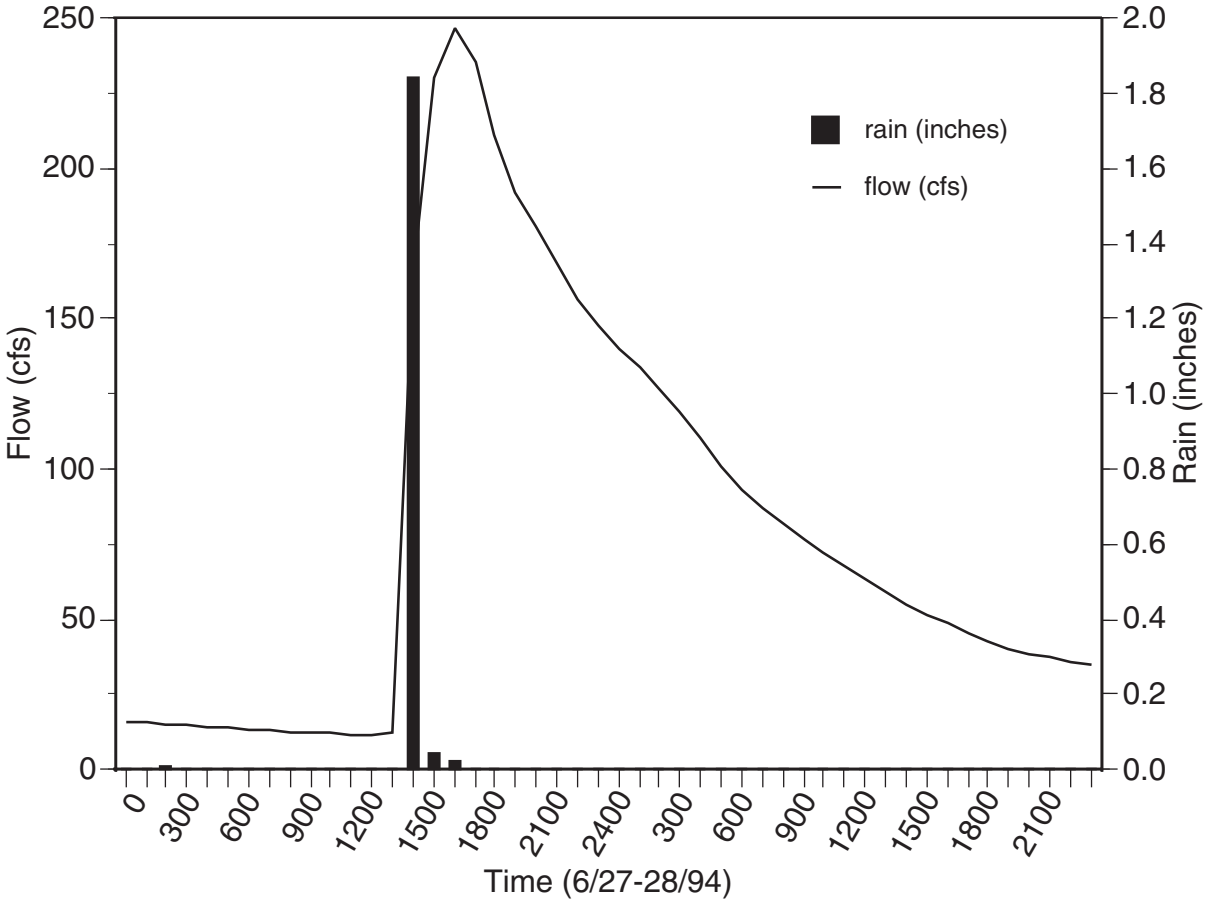

Figure 20.–Mainstem (in Bloomfield Hills) flow in response to 6/27/94 rain event. Data from: Rouge Program Office. Depicts almost immediate response to rain event with rapid recovery. Indicates presence of impervious surfaces, combined sewer overflows, and storm sewers. Rain is expressed as an hourly average.

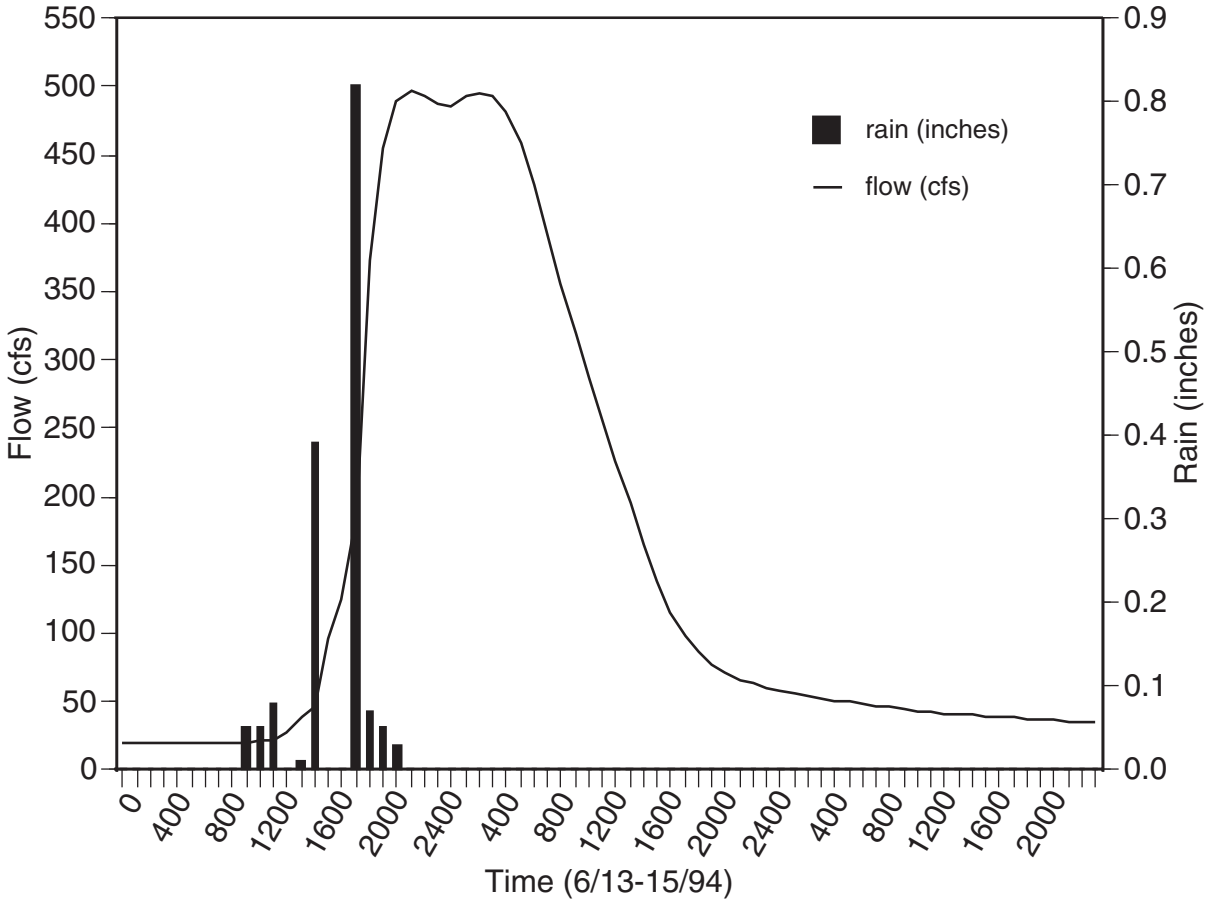

Figure 21.–Upper Rouge River (in Redford) flow in response to 6/13/94 rain event. Data from: Rouge Program Office. Depicts almost immediate response to rain event with rapid recovery. Indicates presence of impervious surfaces, combined sewer overflows, and storm sewers. Rain is expressed as an hourly average.

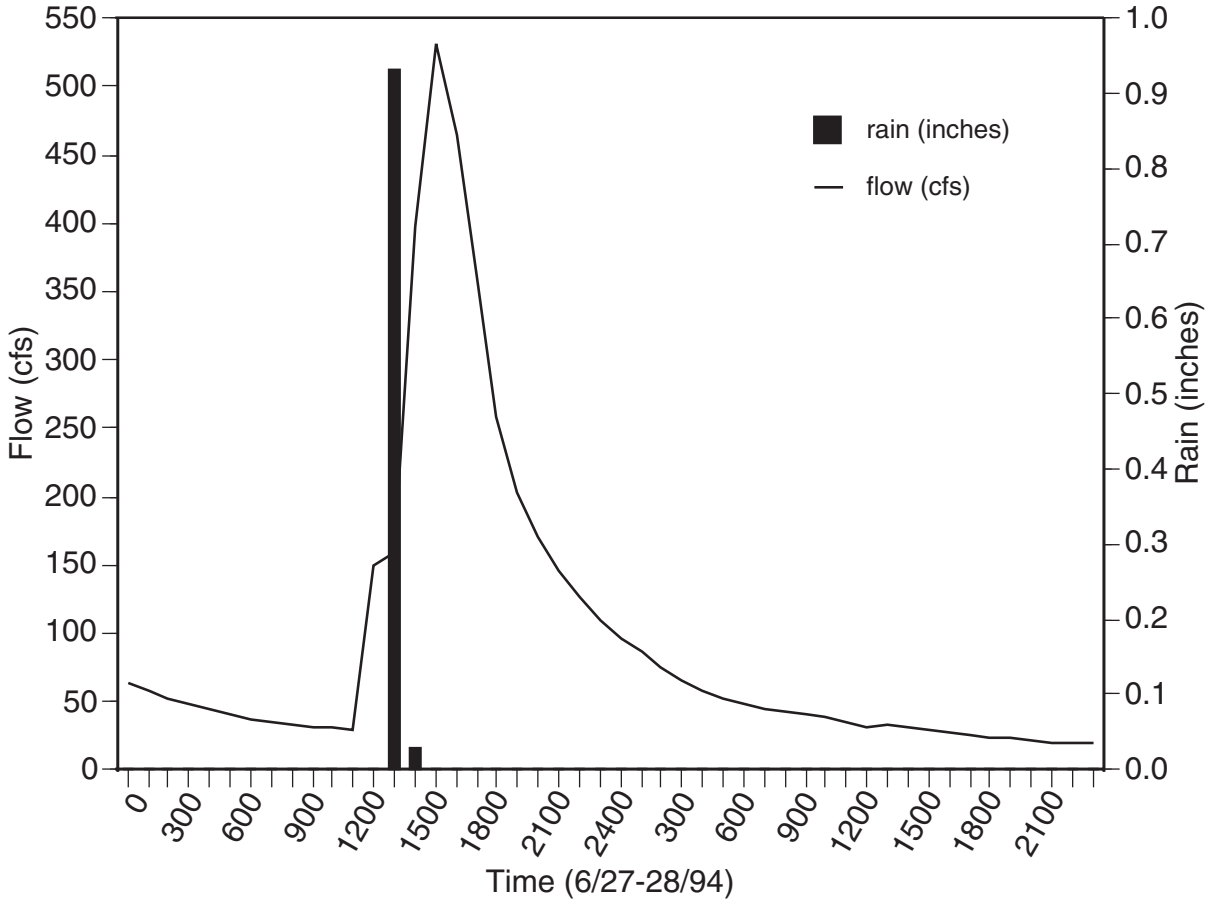

Figure 22.–Middle Rouge River (in Novi) flow in response to 6/26/94 rain event. Data from: Rouge Program Office. Depicts almost immediate response to rain event with rapid recovery. Indicates presence of impervious surfaces and storm sewers. Rain is expressed as an hourly average.

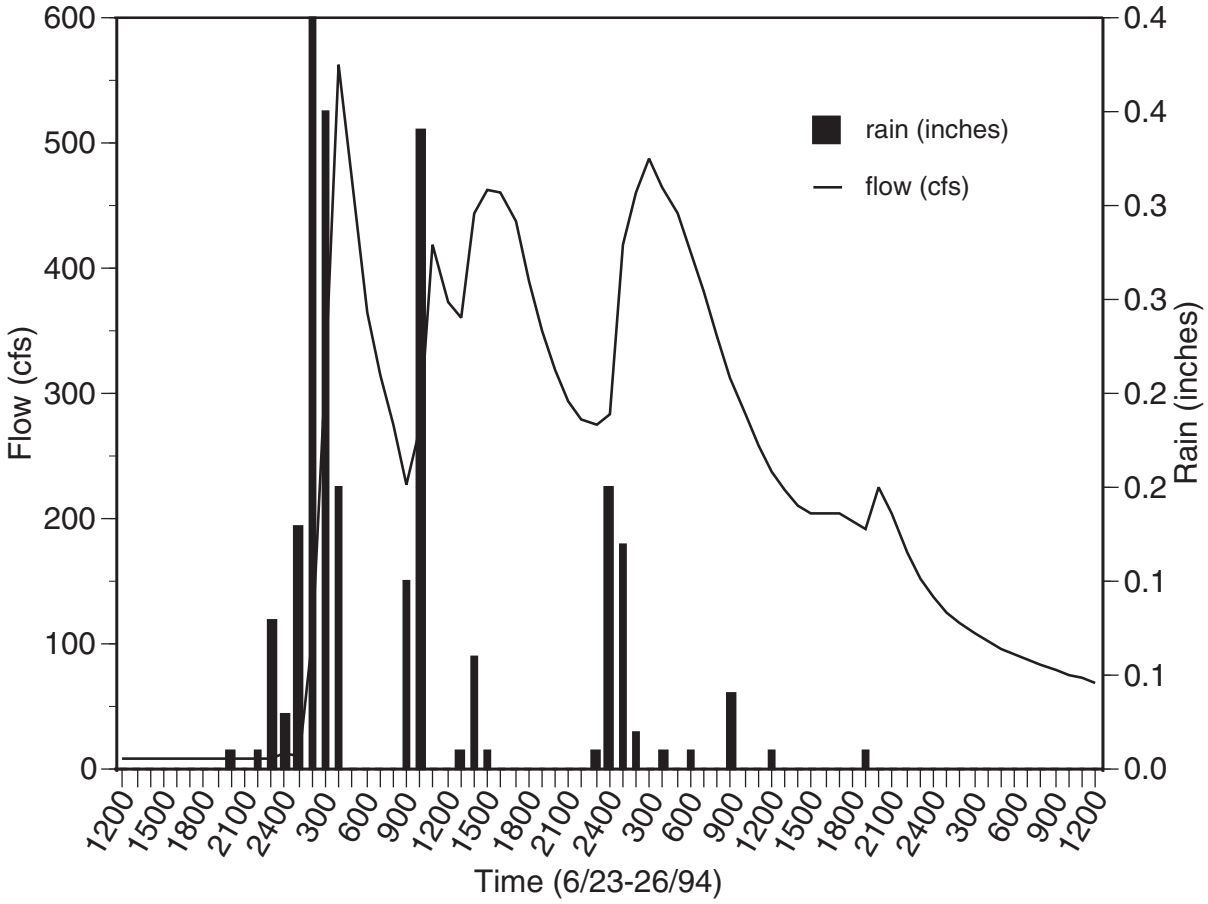

Figure 23.–Lower Rouge River (in Dearborn) flow in response to 6/23-26/94 rain events. Data from: Rouge Program Office. Depicts almost immediate response to rain event with rapid recovery. Indicates presence of impervious surfaces, combined sewer overflows, and storm sewers. Rain is expressed as an hourly average.

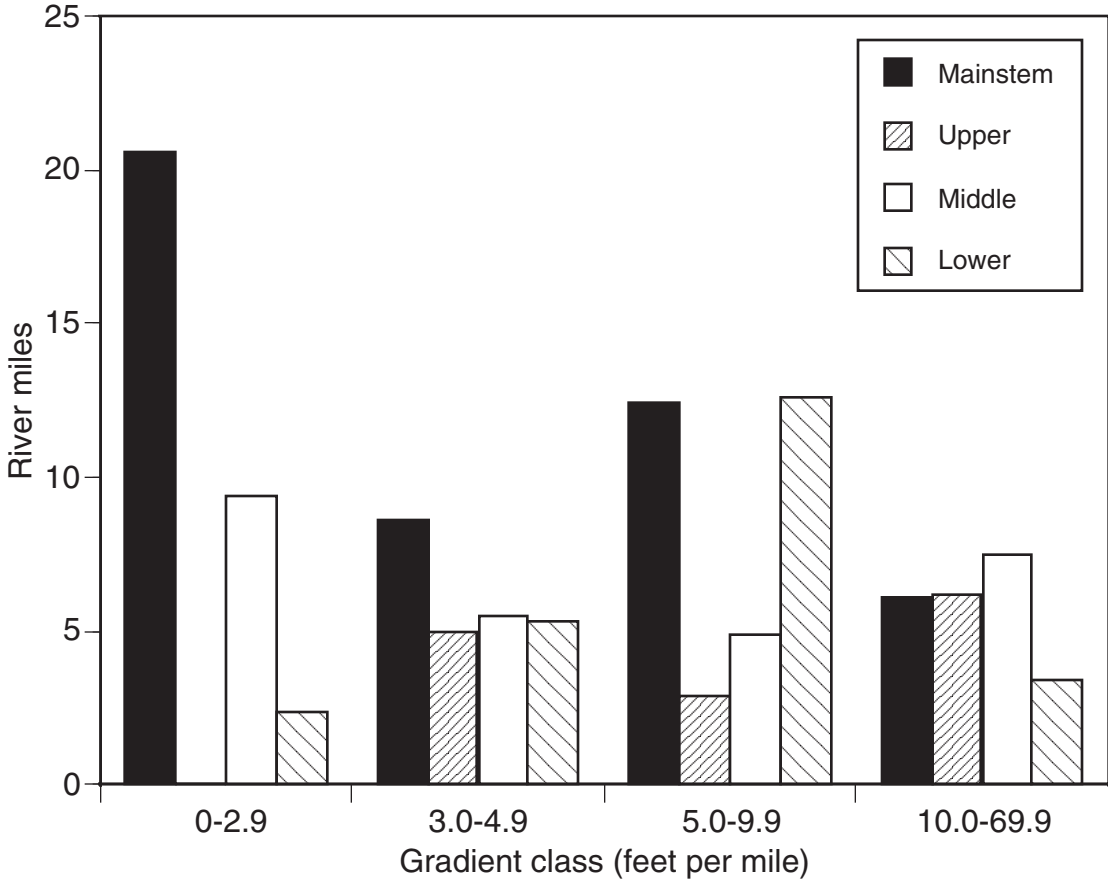

Figure 24.–Gradient classes and length of river in each for the mainstem and three branches.

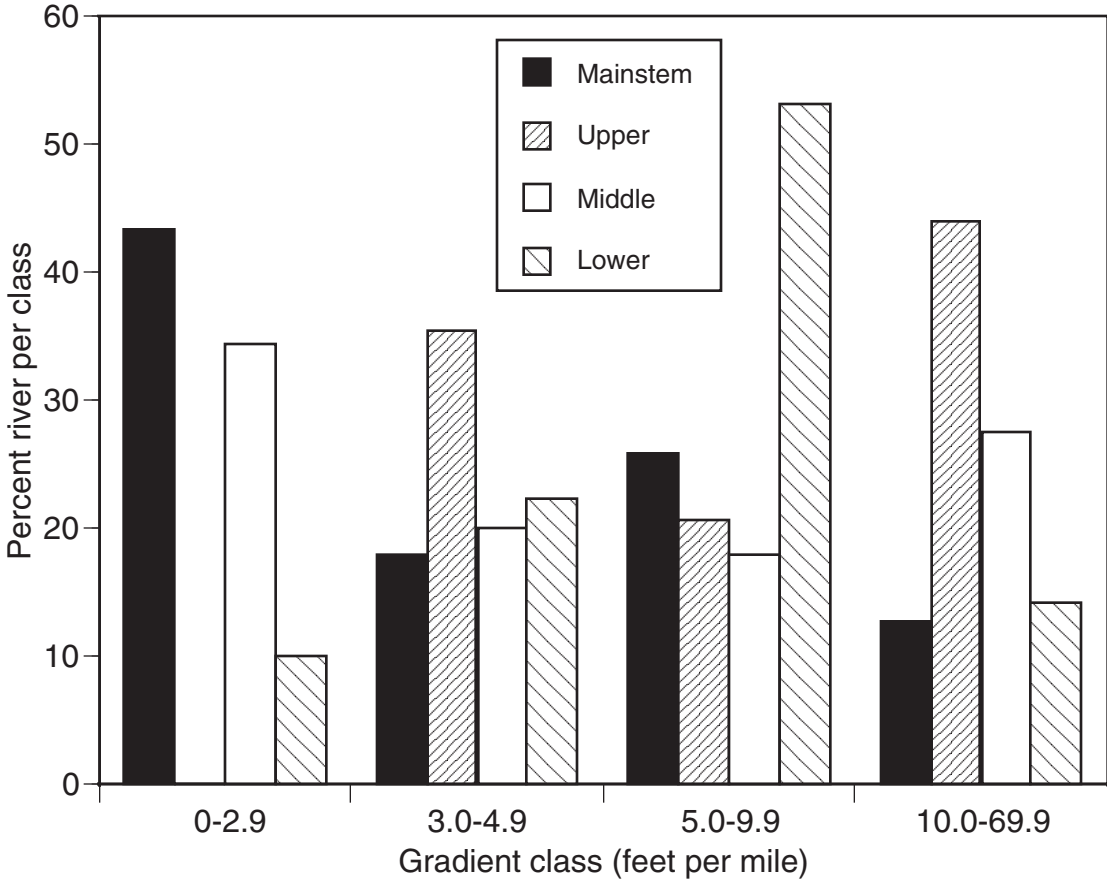

Figure 25.–Gradient classes and percent of river in each for the mainstem and three branches.

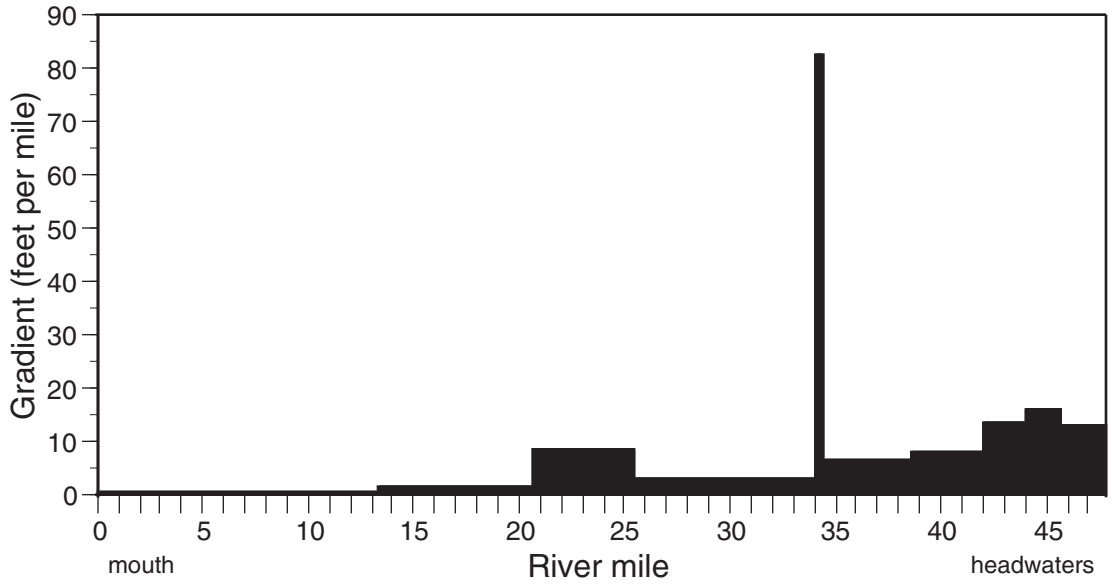

Figure 26a.–Gradient (elevation change in feet per mile) of the mainstem. Values are of stream bottom in tenths of river mile. Gradient is shown without existing dams or lake-level control structures. Data from: United States Geological Survey topographic maps.

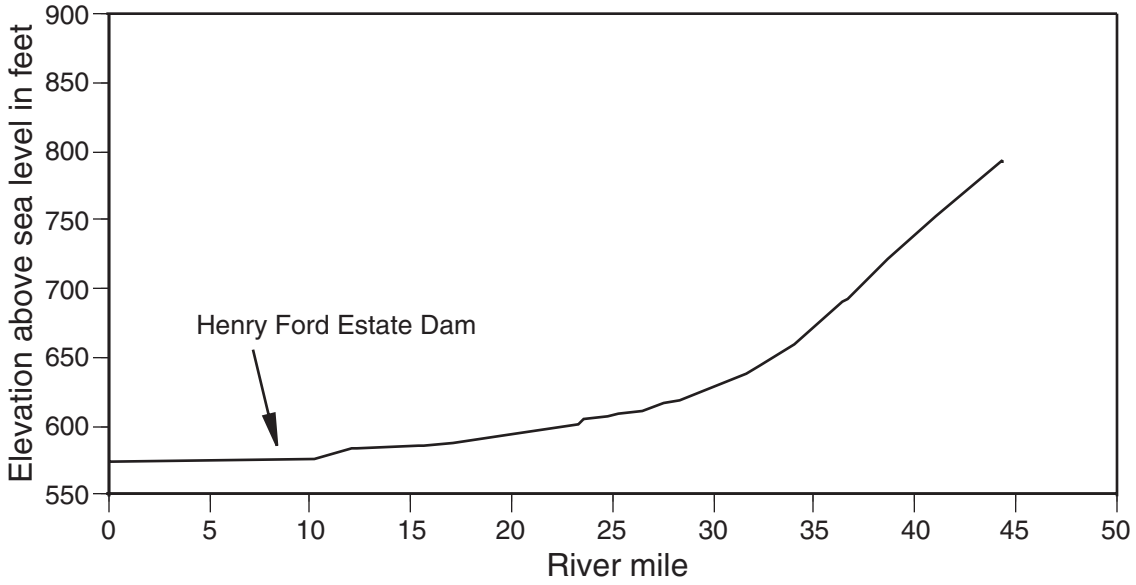

Figure 26b.–Elevation changes, by river mile, from the headwaters to the mouth, of the mainstem. Major mainstem dam locations are shown. Data from: Knutilla, 1970.

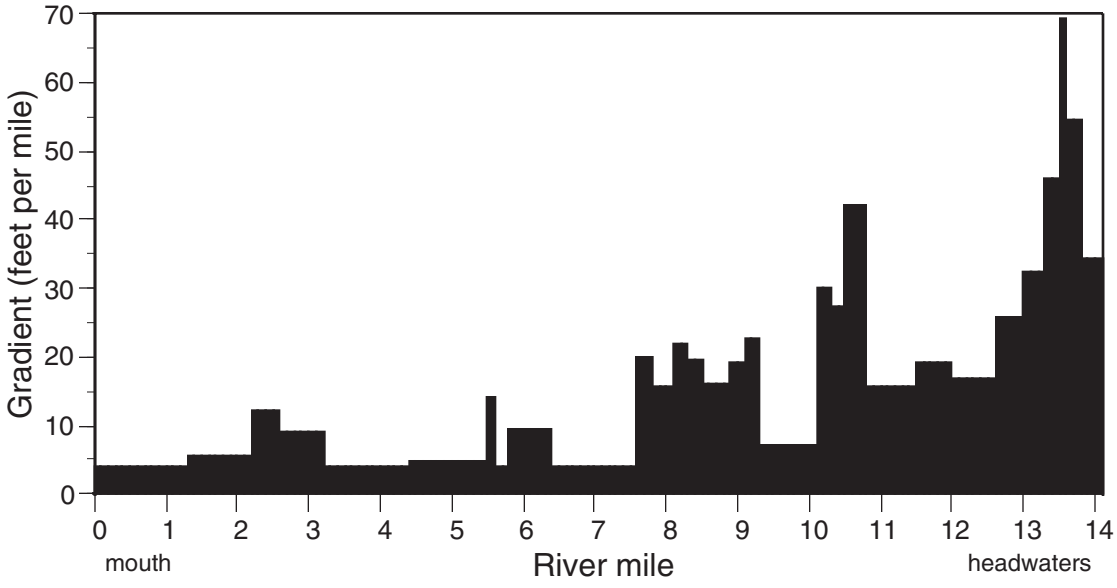

Figure 27a.–Gradient (elevation change in feet per mile) of the Upper Rouge River. Values are of stream bottom in tenths of river mile. Gradient is shown without existing dams or lake-level control structures. Data from: United States Geological Survey topographic maps.

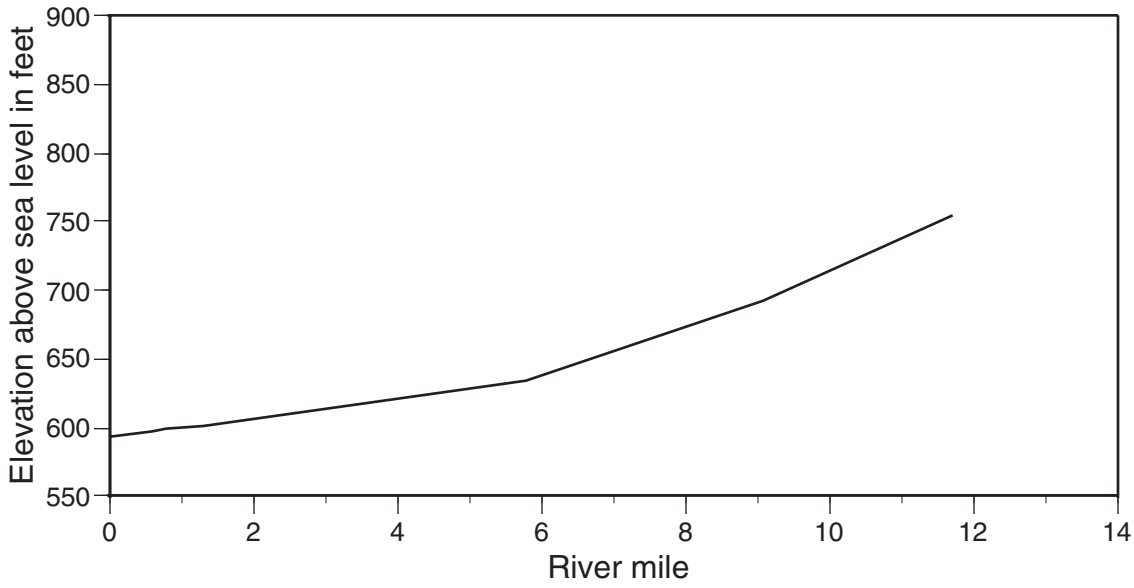

Figure 27b.–Elevation changes, by river mile, from the headwaters to the mouth, of the Upper Rouge River. Data from: Knutilla, 1970.

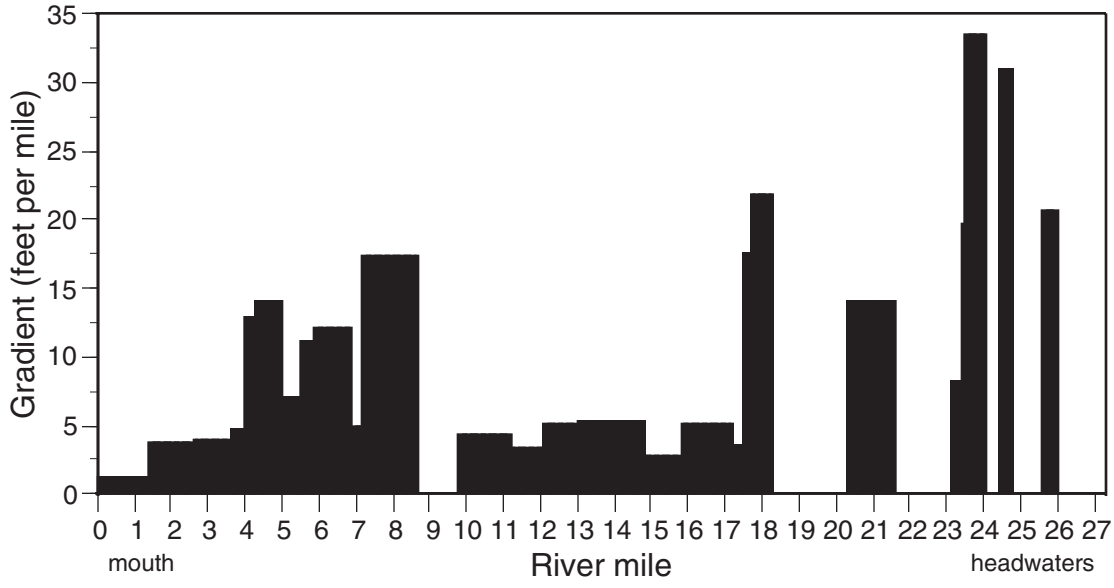

Figure 28a.–Gradient (elevation change in feet per mile) of the Middle Rouge River. Values are of stream bottom in tenths of river mile. Gradient is shown without existing dams or lake-level control structures. Data from: United States Geological Survey topographic maps.

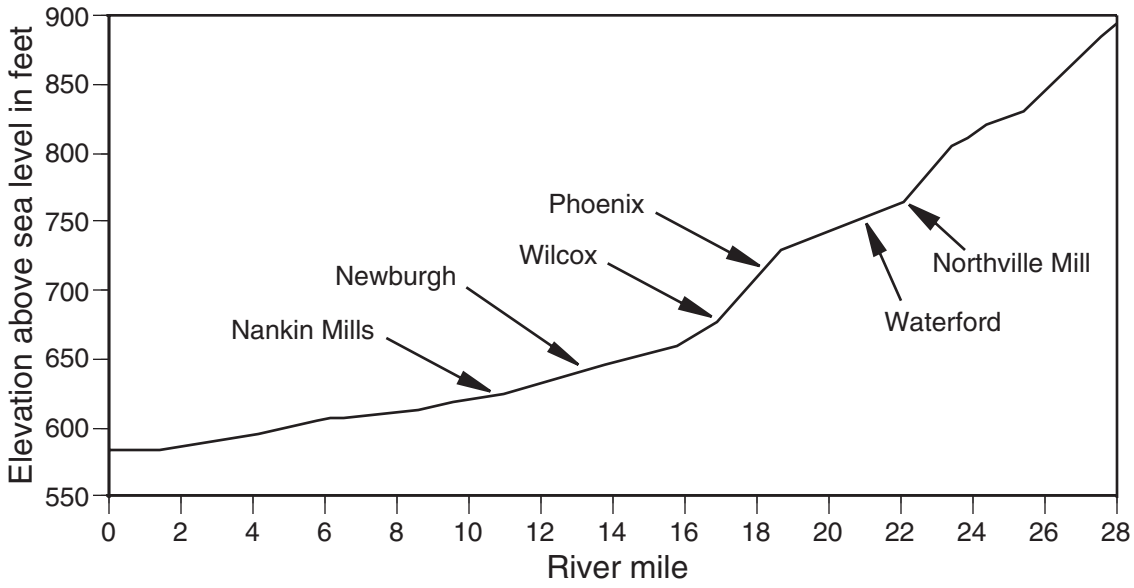

Figure 28b.–Elevation changes, by river mile, from the headwaters to the mouth, of the Middle Rouge River. Major mainstem dam locations are shown. Data from: Knutilla, 1970.

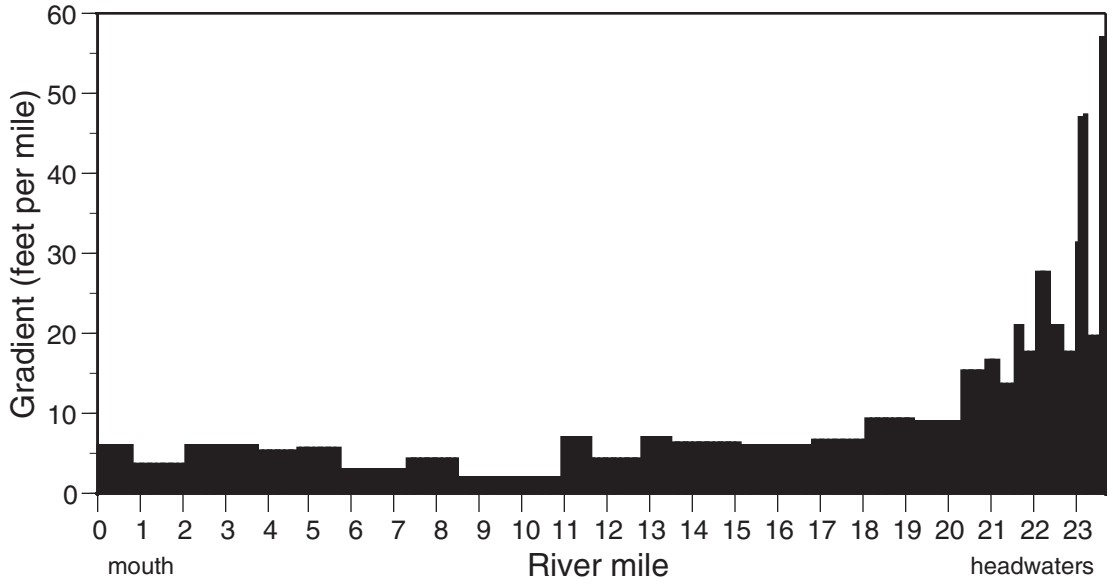

Figure 29a.–Gradient (elevation change in feet per mile) of the Lower Rouge River. Values are of stream bottom in tenths of river mile. Gradient is shown without existing dams or lake-level control structures. Data from: United States Geological Survey topographic maps.

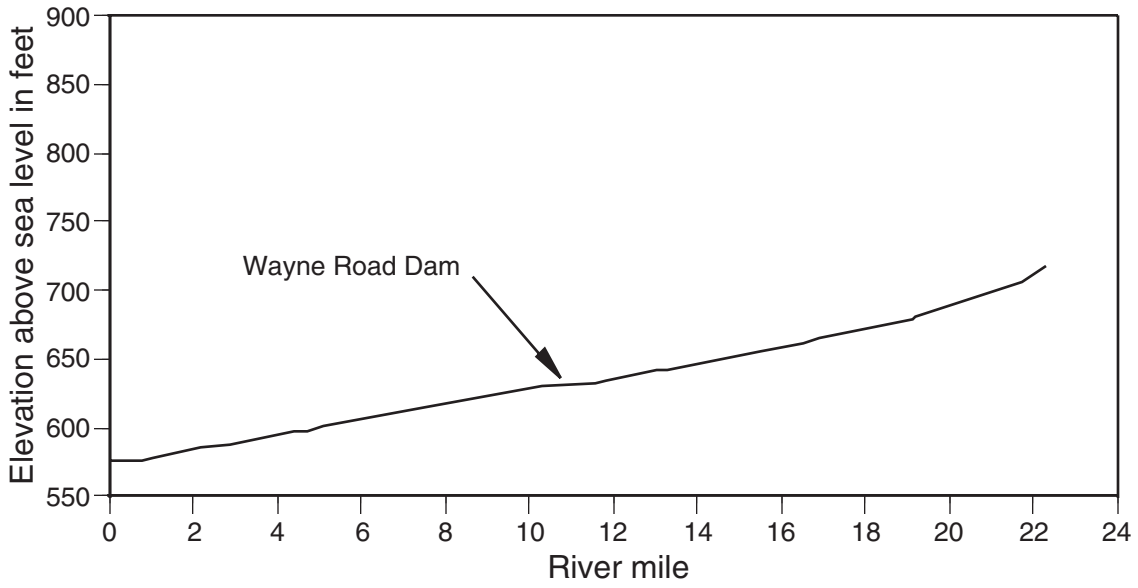

Figure 29b.–Elevation changes, by river mile, from the headwaters to the mouth, of the Lower Rouge River. Major mainstem dam locations are shown. Data from: Knutilla, 1970.

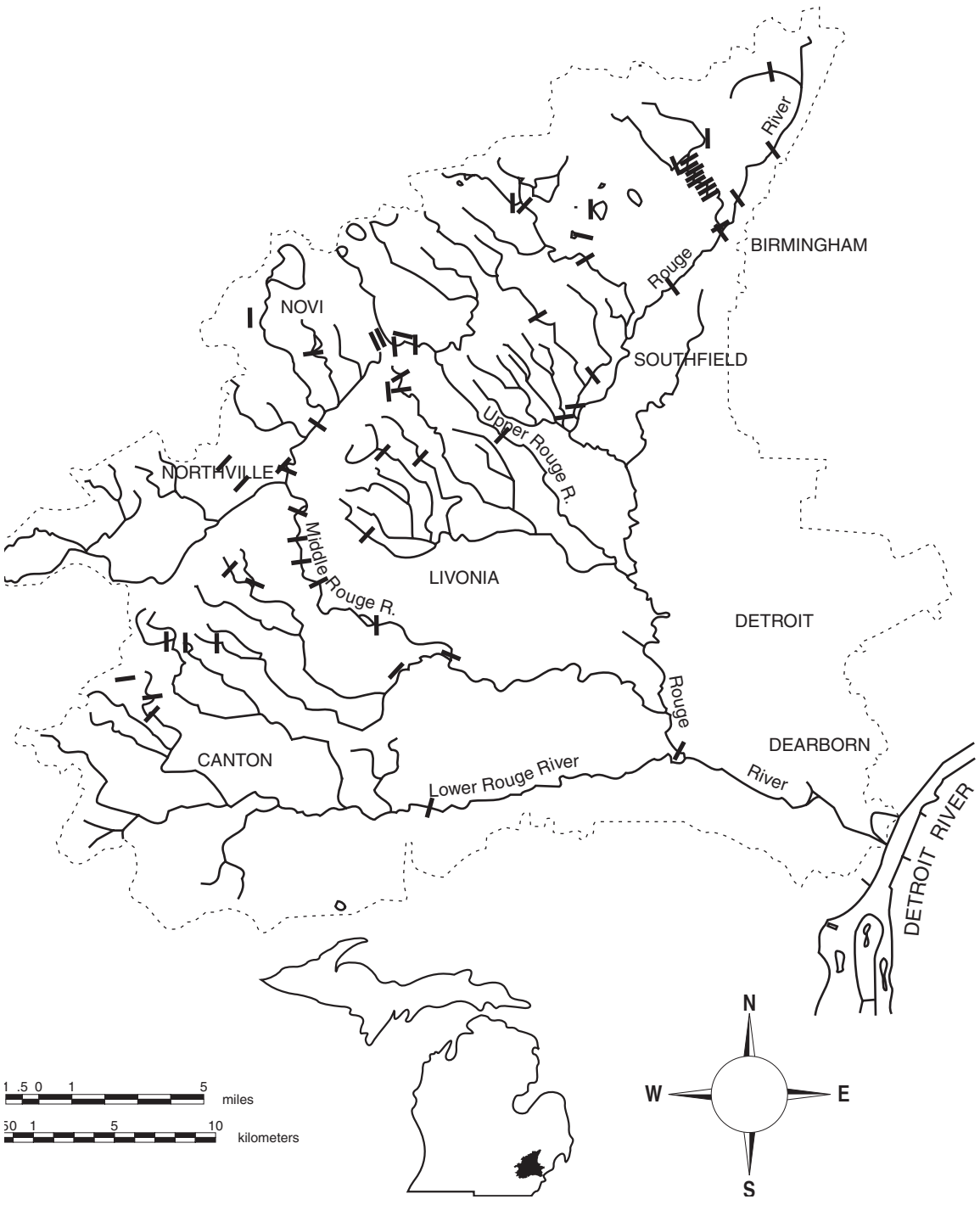

Figure 30.–Locations of dams in the Rouge River watershed. Data from Rouge Program Office.

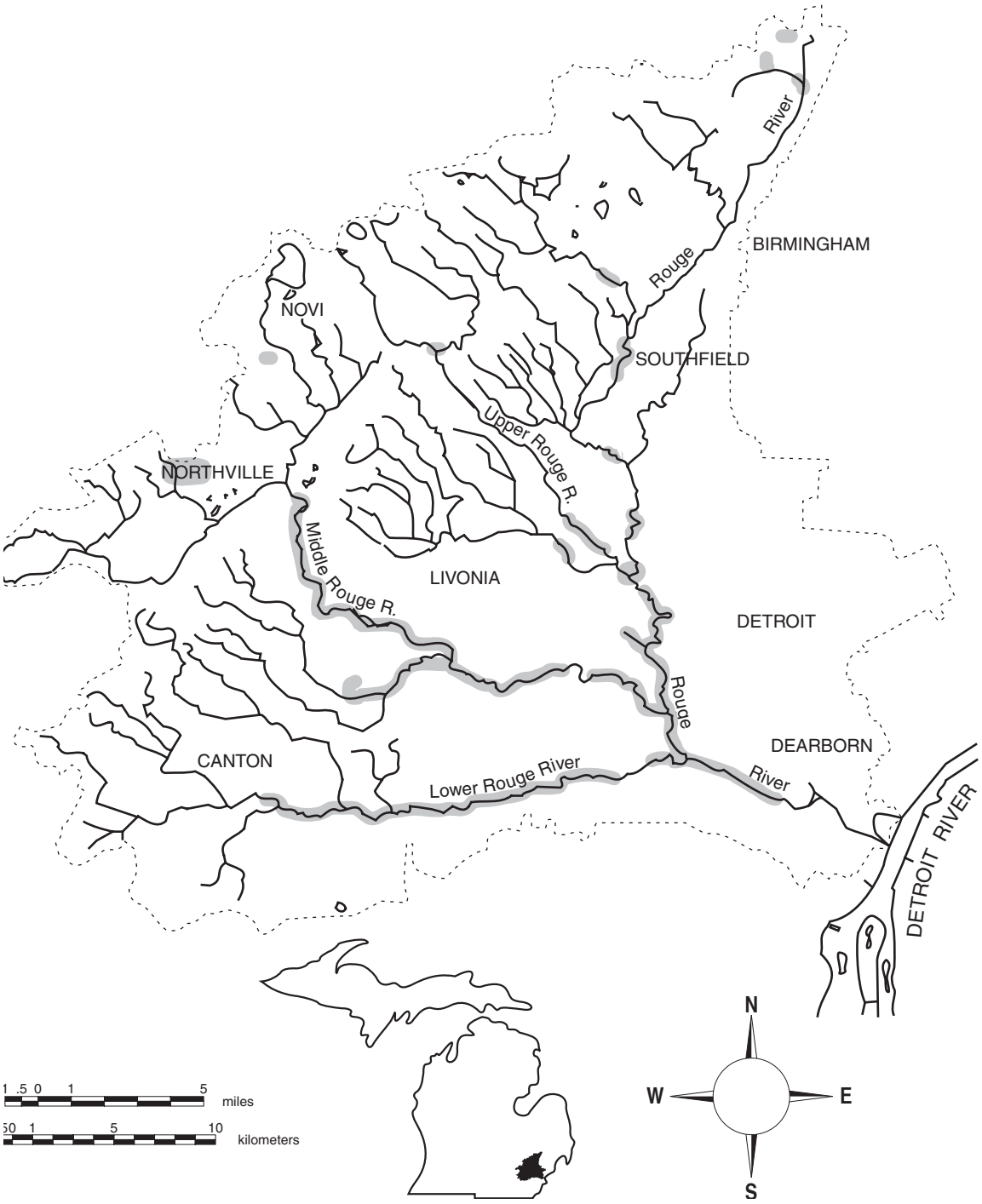

Figure 31.–Major public parkland in the Rouge River watershed.

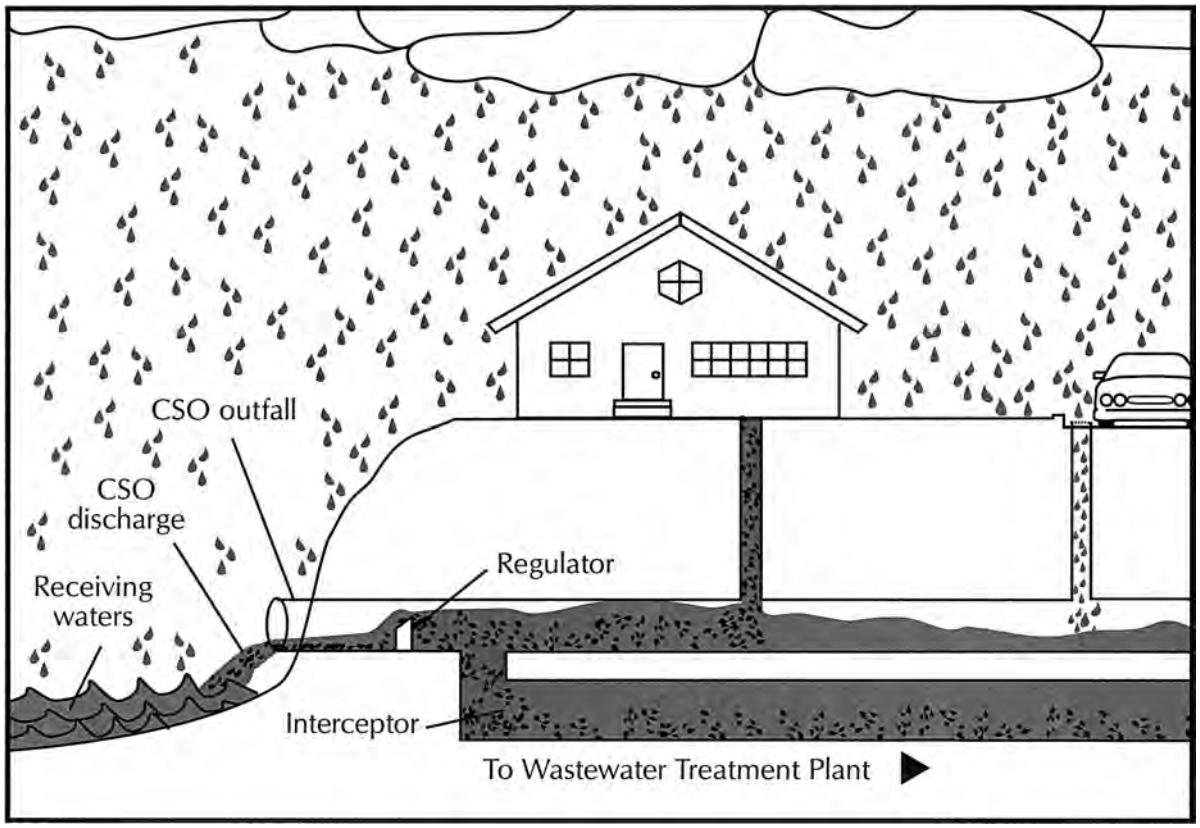

Figure 32.–Illustration of a typical combined sewer system. CSO = combined sewer overflow. Prepared by: Southeast Michigan Council of Governments.

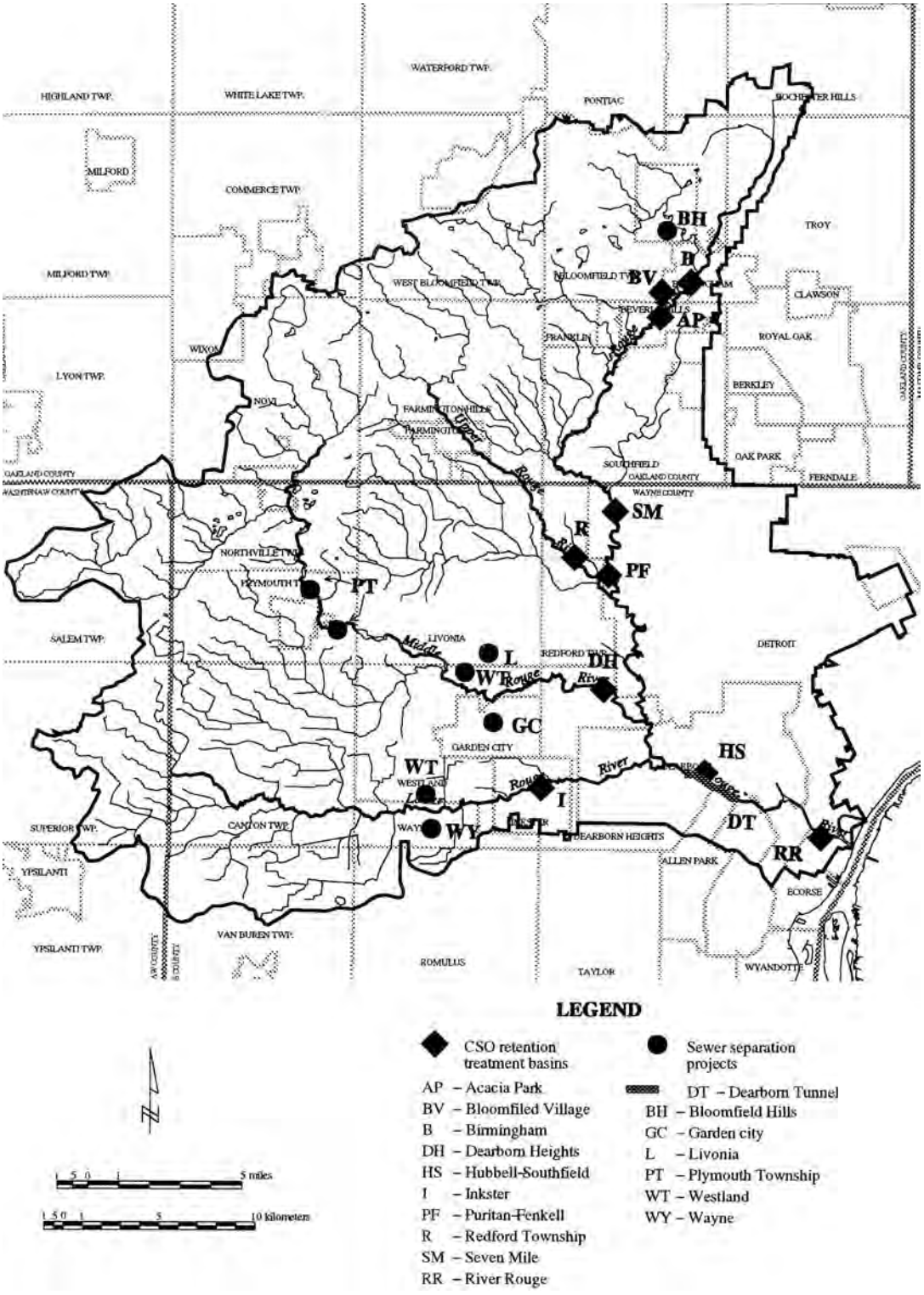

Figure 33.–Location of combined sewer overflow (CSO) abatement projects in the Rouge River watershed. Map and data from Rouge Program Office.

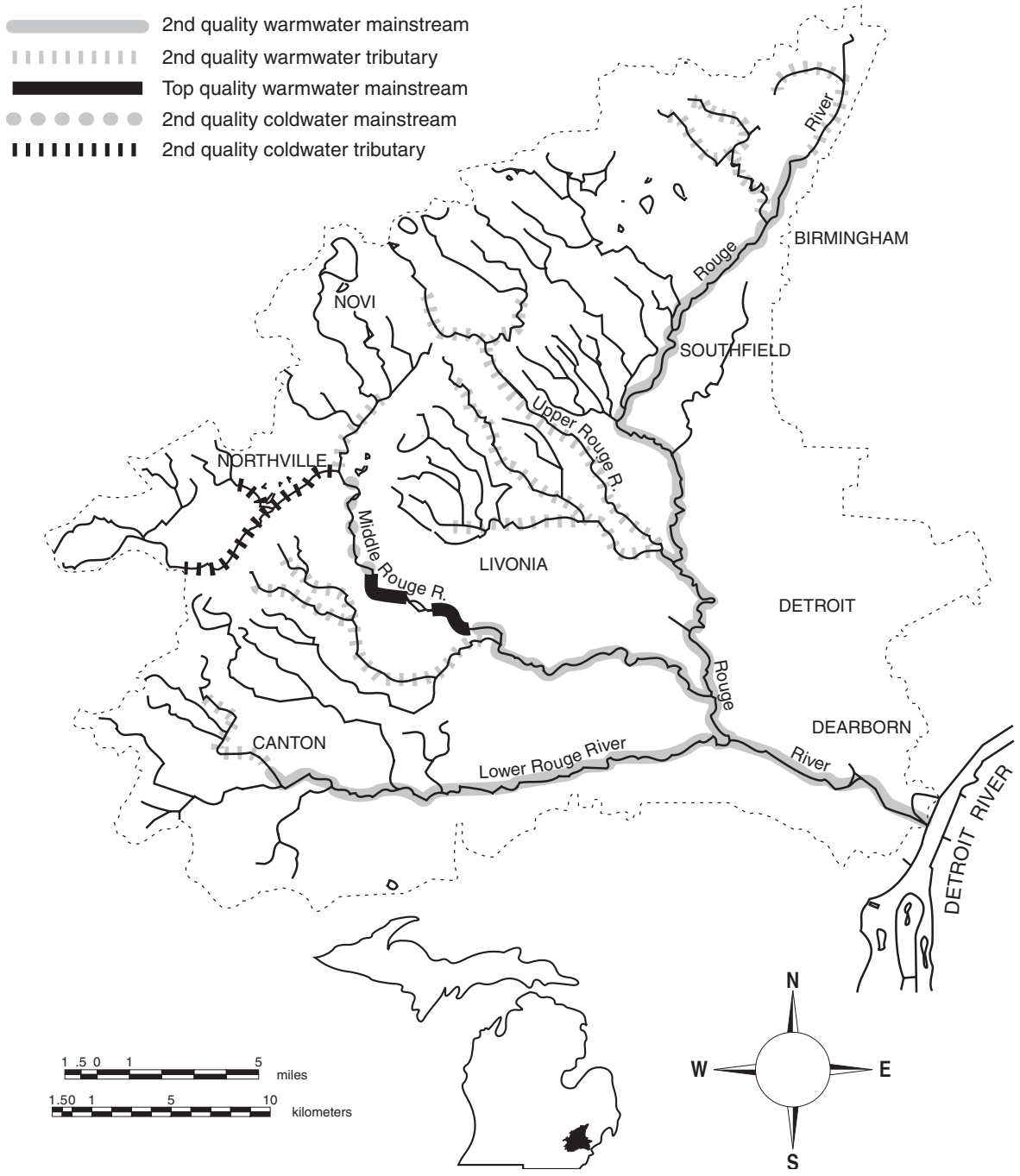

Figure 34.–Fisheries stream classification map. (Michigan Department of Natural Resources, Fisheries Division, 1964.)