# FIGURES

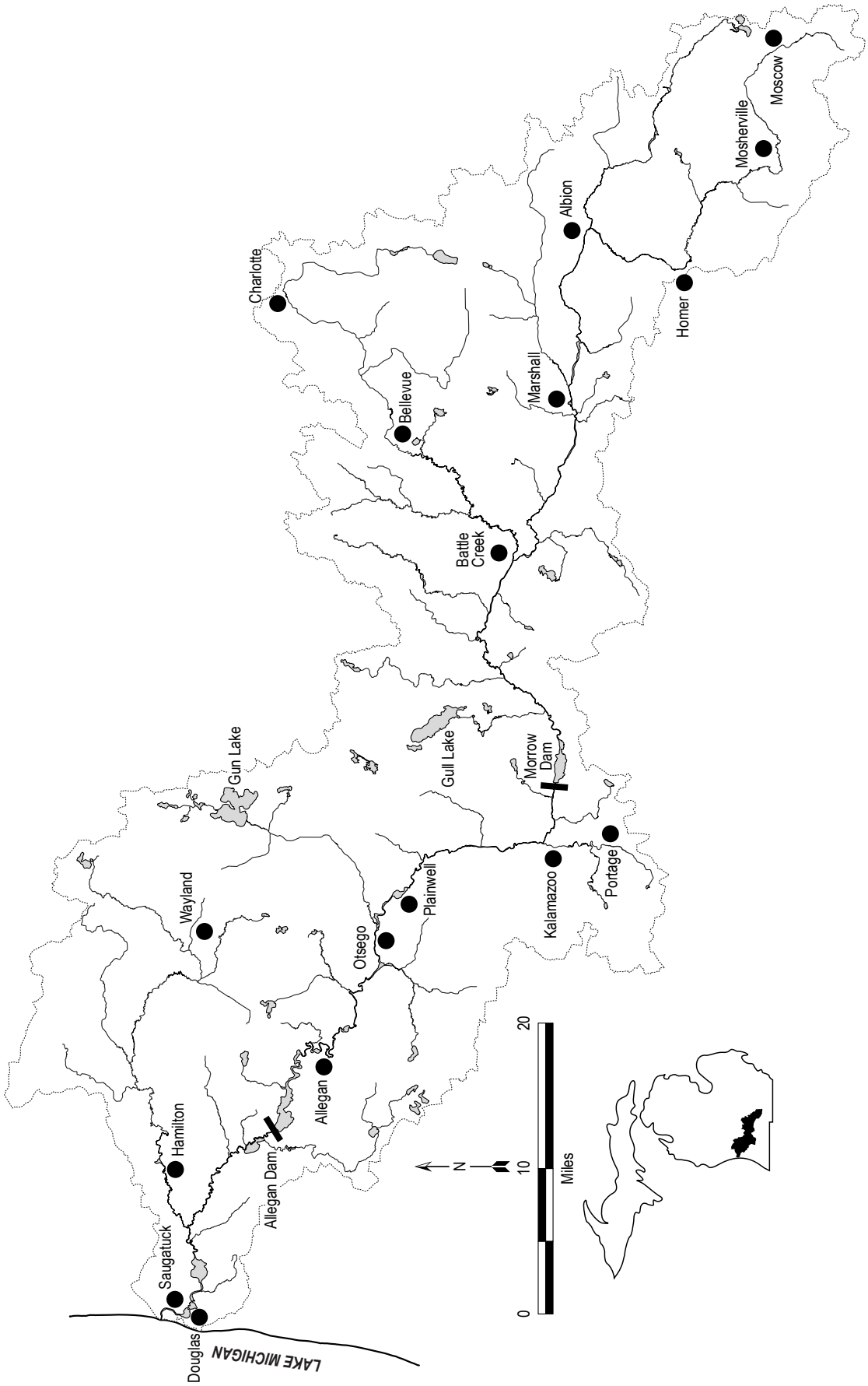


Figure 1.–The Kalamazoo River watershed.

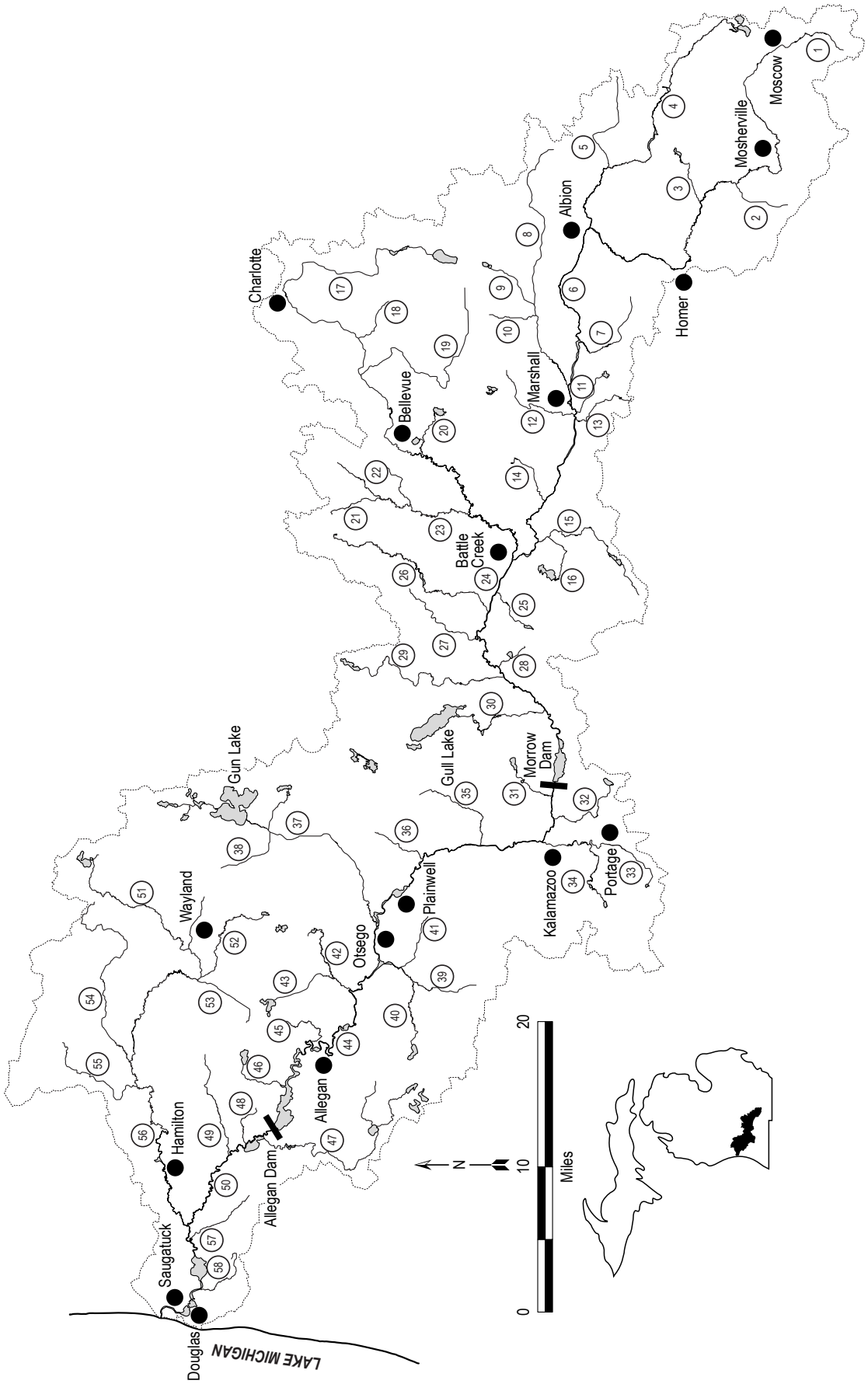


Figure 2.–Major tributaries in the Kalamazoo River watershed.

Figure 2.–Legend.

1. South Branch Kalamazoo River (Headwaters)
2. Beaver Creek
3. Swains Creek
4. North Branch Kalamazoo River
5. Spring Arbor Creek
6. Kalamazoo River (Upper)
7. Wilder Creek
8. South Branch Rice Creek
9. North Branch Rice Creek
10. Baker Creek
11. Talmadge Creek
12. Bear Creek
13. Squaw Creek
14. Dickinson Creek
15. Harper Creek
16. Minges Brook
17. Battle Creek
18. Big Creek
19. Indian Creek
20. Ackley Creek
21. Ellis Creek
22. Crooked Brook
23. Wanadoga Creek
24. Kalamazoo River (Middle)
25. Harts Creek
26. Wabascon Creek
27. Sevenmile Creek
28. Eagle Creek
29. Augusta Creek
30. Gull Creek
31. Comstock Creek
32. Davis Creek
33. Portage Creek
34. West Fork Portage Creek
35. Spring Brook
36. Silver Creek
37. Gun River
38. Greggs Brook
39. Pine Creek
40. Base Line Creek
41. McBride Creek
42. Schnable Brook
43. Miner Creek
44. Kalamazoo River (Lower)
45. Rossman Creek
46. Dumont Creek
47. Swan Creek
48. Sand Creek
49. Bear Creek
50. Kalamazoo River (Mouth)
51. Green Lake Creek
52. Miller Creek
53. Bear Creek
54. Little Rabbit Creek
55. Black Creek
56. Rabbit River
57. Mann Creek
58. Peach Orchard Creek

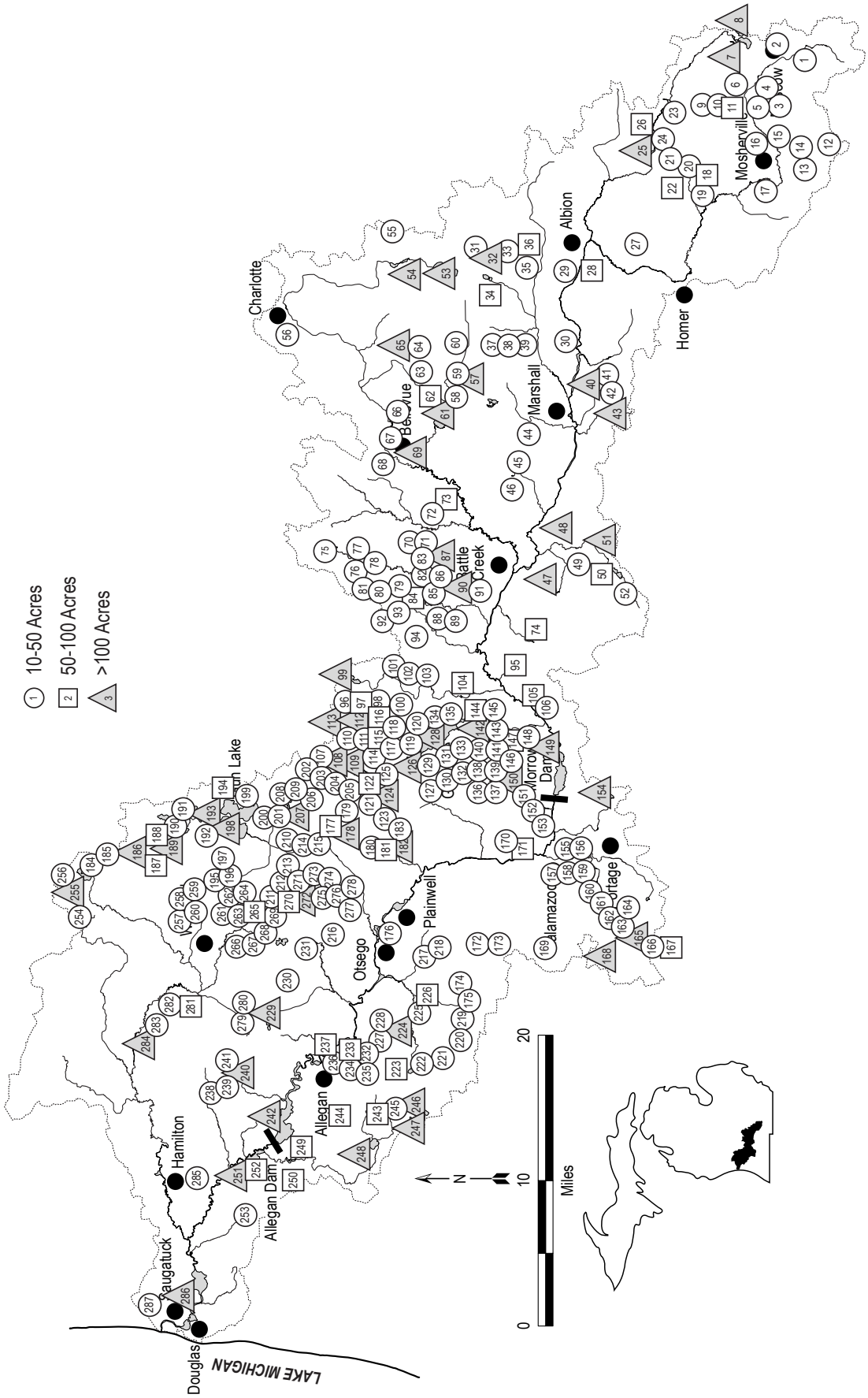


Figure 3.–Approximate location of lakes greater than 10 acres in the Kalamazoo River watershed.

Figure 3.–Legend.

| # | Name | Size (Acres) |
|---|---|---|
| 1. | Unnamed | 21 |
| 2. | Unnamed | 12 |
| 3. | Unnamed | 16 |
| 4. | Willet Lake | 46 |
| 5. | Unnamed | 13 |
| 6. | Unnamed | 14 |
| 7. | Farwell Lake | 281 |
| 8. | Round Lake | 151 |
| 9. | Rustine Lake | 26 |
| 10. | Bibbons Lake | 34 |
| 11. | Horseshoe Lake | 53 |
| 12. | Unnamed | 13 |
| 13. | Unnamed | 13 |
| 14. | Hastings Lake | 33 |
| 15. | Cobb Lake | 34 |
| 16. | Unnamed | 18 |
| 17. | Goose Lake | 19 |
| 18. | Wibur Lake | 68 |
| 19. | Unnamed | 14 |
| 20. | Unnamed | 16 |
| 21. | Unnamed | 11 |
| 22. | Unnamed | 74 |
| 23. | Cross Lake | 30 |
| 24. | Unnamed | 10 |
| 25. | Mill Pond | 109 |
| 26. | Unnamed | 71 |
| 27. | Unnamed | 27 |
| 28. | Spectacle Lake | 68 |
| 29. | Montcalm Lake | 42 |
| 30. | Unnamed | 11 |
| 31. | Unnamed | 12 |
| 32. | Bolt Lake | 137 |
| 33. | Gordon Lake | 30 |
| 34. | Prairie Lake | 89 |
| 35. | Winnipeg Lake | 40 |
| 36. | Halls Lake | 75 |
| 37. | Chapin Lake | 12 |
| 38. | Unnamed | 32 |
| 39. | Rothrick Lake | 11 |
| 40. | Stuart Lake | 186 |
| 41. | Maynard Lake | 16 |
| 42. | Unnamed | 23 |
| 43. | Cedar Lake | 141 |
| 44. | Unknown | 10 |
| 45. | Mud Lake | 22 |
| 46. | Cole Lake | 16 |
| 47. | Goguac Lake | 340 |
| 48. | Beadle Lake | 134 |
| 49. | Pearl Lake | 11 |
| 50. | Sonoma Lake | 92 |
| 51. | Graham Lake | 139 |
| 52. | Unnamed | 11 |
| 53. | Duck Lake | 596 |
| 54. | Narrow Lake | 119 |
| 55. | Steel Lake | 11 |
| 56. | Unnamed | 11 |
| 57. | Potter Lake | 111 |
| 58. | Lane Lake | 24 |
| 59. | Pardy Lake | 19 |
| 60. | Lake of the Woods | 44 |
| 61. | Big Marsh Lake | 168 |
| 62. | Ackley Lake | 70 |
| 63. | Kinyon Lake | 14 |
| 64. | Garfield Lake | 44 |
| 65. | Pine Lake | 127 |
| 66. | Unnamed | 19 |
| 67. | Unnamed | 20 |
| 68. | Unnamed | 10 |
| 69. | Mud Lake | 107 |
| 70. | Loon Lake | 37 |
| 71. | Grass Lake | 23 |
| 72. | Pine Lake | 26 |
| 73. | Clear Lake | 50 |
| 74. | Harts Lake | 55 |
| 75. | Taylor Lake | 27 |
| 76. | Cassidy Lake | 26 |
| 77. | West Lake | 27 |
| 78. | High Hill Lake | 29 |
| 79. | Mud Lake | 16 |
| 80. | Wilkes Lake | 14 |
| 81. | Dunn Lake | 11 |
| 82. | Metcalf Lake | 31 |
| 83. | Unknown | 12 |
| 84. | Wabascon Lake | 93 |
| 85. | Unknown | 10 |
| 86. | Unknown | 25 |
| 87. | Bear Lake | 114 |
| 88. | Unknown | 14 |
| 89. | Unnamed | 12 |
| 90. | St. Marys Lake | 118 |
| 91. | Hamlin Lake | 20 |
| 92. | Unnamed | 13 |
| 93. | Unnamed | 11 |
| 94. | Howe Lake | 17 |
| 95. | Eagle Lake | 71 |
| 96. | Bulkey Lake | 32 |
| 97. | Gilkey Lake | 83 |
| 98. | Shallow Gilkey Lake | 20 |
| 99. | Fair Lake | 226 |
| 100. | Lawrence Lake | 10 |
| 101. | Manning Lake | 20 |
| 102. | Strewins Lake | 17 |
| 103. | Hamilton Lake | 29 |
| 104. | Stony Lake | 63 |
| 105. | Lawler Lake | 61 |
| 106. | Whitford Lake | 20 |
| 107. | Holcomb Lake | 48 |
| 108. | Upper Crooked Lake | 644 |
| 109. | Lower Crooked Lake | 433 |
| 110. | Glasby Lake | 26 |
| 111. | Unnamed | 11 |
| 112. | Mud Lake | 132 |
| 113. | Pleasant Lake | 141 |
| 114. | Dake Lake | 38 |
| 115. | Unnamed | 53 |
| 116. | Bullhead Lake | 52 |
| 117. | Unnamed | 22 |
| 118. | Unnamed | 14 |
| 119. | Unnamed | 43 |
| 120. | Unnamed | 26 |
| 121. | Unnamed | 12 |
| 122. | West Gilkey Lake | 91 |
| 123. | Miller Lake | 46 |
| 124. | Indian Lake | 119 |
| 125. | Unnamed | 11 |
| 126. | Little Long Lake | 170 |
| 127. | Unknown | 13 |
| 128. | Gull Lake | 2,046 |
| 129. | Miller Lake | 27 |
| 130. | Unnamed | 40 |
| 131. | Grassy Lake | 41 |
| 132. | Unknown | 13 |
| 133. | Unknown | 14 |
| 134. | Duck Lake | 33 |
| 135. | Wintergreen Lake | 36 |
| 136. | Unnamed | 20 |
| 137. | Unnamed | 13 |
| 138. | Unnamed | 19 |
| 139. | Butterfield Lake | 24 |
| 140. | Graham Lake | 10 |
| 141. | Unnamed | 48 |
| 142. | Sherman Lake | 148 |
| 143. | Mill Pond | 27 |
| 144. | Unnamed | 81 |
| 145. | Pond Lily Lake | 21 |
| 146. | Three Lakes Upper | 13 |
| 147. | Three Lakes Middle | 51 |
| 148. | Three Lakes Lower | 39 |
| 149. | Morrow Lake | 933 |
| 150. | Campbell Lake | 150 |
| 151. | Unnamed | 16 |
| 152. | Lyons Lake | 44 |
| 153. | Unnamed | 34 |
| 154. | East Lake | 117 |
| 155. | Bryant Mill Pond | 14 |
| 156. | Monarch Mill Pond | 16 |
| 157. | Unknown | 34 |
| 158. | Woods Lake | 18 |
| 159. | Whites Lake | 22 |
| 160. | Limekiln Lake | 27 |
| 161. | Atwater Mill Pond | 44 |
| 162. | Scouters Pond | 17 |
| 163. | Fish Camp Pond | 11 |
| 164. | Bass Lake | 39 |
| 165. | Crooked Lake | 146 |
| 166. | Duck Lake | 10 |
| 167. | Pretty Lake | 88 |
| 168. | Eagle Lake | 194 |
| 169. | Bonnie Castle Lake | 31 |
| 170. | Averill Lake | 10 |
| 171. | Unknown | 56 |
| 172. | Unknown | 14 |
| 173. | Unknown | 10 |
| 174. | Unknown | 11 |
| 175. | Mud Lakes | 13 |
| 176. | Unknown | 11 |
| 177. | Shelp Lake | 80 |
| 178. | Pine Lake | 611 |
| 179. | Unknown | 19 |
| 180. | Warner Lake | 41 |
| 181. | Silver Lake | 50 |
| 182. | Lake Doster | 108 |
| 183. | Cook Lake | 19 |

Figure 3.–Legend (continued).

| # | Name | Size (Acres) | # | Name | Size (Acres) |
|---|---|---|---|---|---|
| 184. | Leeks Lake | 14 | 236. | Pike Lake | 34 |
| 185. | Hardwood Lake | 28 | 237. | Imperial Impoundment | 89 |
| 186. | Barlow Lake | 181 | 238. | Big Spec Lake | 23 |
| 187. | Cobb Lake | 92 | 239. | Little Spec Lake | 19 |
| 188. | Baker Lake | 68 | 240. | Dumont Lake | 241 |
| 189. | Payne Lake | 163 | 241. | Wetmore Lake | 46 |
| 190. | Williams Lake | 20 | 242. | Lake Allegan | 1,711 |
| 191. | McDonald Lake | 16 | 243. | Emerson Lake | 50 |
| 192. | Unknown | 11 | 244. | Schemerhorn Lake | 75 |
| 193. | Long Lake | 147 | 245. | Unknown | 11 |
| 194. | Hall Lake | 58 | 246. | Duke Lake | 139 |
| 195. | Mill Pond | 14 | 247. | Eagle Lake | 205 |
| 196. | Boot Lake | 38 | 248. | Swan Lake | 214 |
| 197. | Round Lake | 34 | 249. | Swan Creek Pond | 60 |
| 198. | Gun Lake | 2,661 | 250. | Round Lake | 59 |
| 199. | Bullhead Lake | 23 | 251. | Swan Creek Marsh | 312 |
| 200. | Unknown | 15 | 252. | Swan Creek Marsh | 72 |
| 201. | Unknown | 19 | 253. | Perch Lake | 18 |
| 202. | Wiley Lake | 26 | 254. | Huckleberry Lake | 26 |
| 203. | Unknown | 15 | 255. | Green Lake | 298 |
| 204. | Blue Lake | 17 | 256. | Round Lake | 15 |
| 205. | Adams Lake | 16 | 257. | Unknown | 15 |
| 206. | Unknown | 39 | 258. | Unknown | 14 |
| 207. | Fish Lake | 151 | 259. | Hill Lake | 21 |
| 208. | Lime Lake | 19 | 260. | Jackson Lake | 14 |
| 209. | Horseshoe Lake | 14 | 261. | Pickerel Lake | 23 |
| 210. | Mill Pond | 20 | 262. | Mud Lake | 43 |
| 211. | Lake Sixteen | 34 | 263. | Indian Lake | 11 |
| 212. | Fenner Lake | 32 | 264. | Geneva Lake | 37 |
| 213. | Pratt Lake | 34 | 265. | Selkirk Lake | 92 |
| 214. | England Lake | 10 | 266. | Doans Lake | 11 |
| 215. | Unknown | 17 | 267. | Unknown | 15 |
| 216. | Unknown | 22 | 268. | Unknown | 15 |
| 217. | Ruppert Lake | 27 | 269. | Unknown | 11 |
| 218. | Murray Lake | 11 | 270. | Miller Lake | 52 |
| 219. | Long Lake | 12 | 271. | Shagnasty Lake | 24 |
| 220. | Muskrat Lake | 23 | 272. | Big Lake | 152 |
| 221. | Unknown | 15 | 273. | Hicks Lake | 21 |
| 222. | Three Legged Lake | 35 | 274. | Wetheral Lake | 12 |
| 223. | Sweet Lake | 56 | 275. | Unknown | 15 |
| 224. | Baseline Lake | 211 | 276. | Unknown | 15 |
| 225. | Buell Lake | 11 | 277. | Unknown | 10 |
| 226. | Clear Lake | 70 | 278. | Caruthers Lake | 21 |
| 227. | Minkler Lake | 49 | 279. | Herlan Lake | 26 |
| 228. | Hodge Lake | 12 | 280. | Ingerson Lake | 16 |
| 229. | Miner Lake | 328 | 281. | East Lake | 55 |
| 230. | School Section Lake | 18 | 282. | Three Corner Lake | 14 |
| 231. | Schnable Lake | 46 | 283. | Unknown | 14 |
| 232. | Osgood Lake | 23 | 284. | Monterey Lake | 194 |
| 233. | Lake Sixteen | 58 | 285. | Sink Lake | 41 |
| 234. | Middle Lake | 18 | 286. | Kalamazoo Lake | 321 |
| 235. | Sheffer Lake | 11 | 287. | Goshorn Lake | 28 |

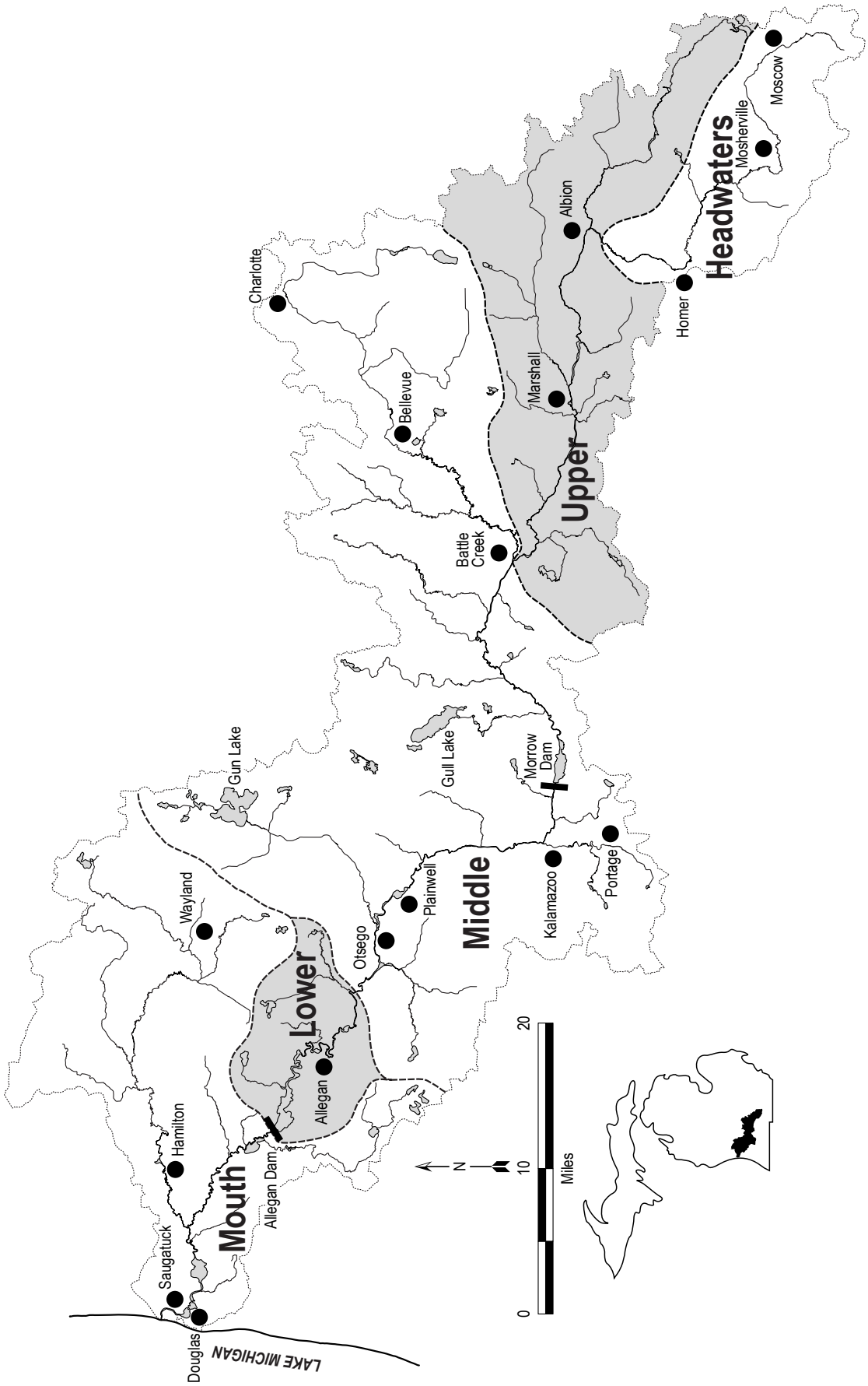


Figure 4.–Mainstem valley segments of the Kalamazoo River.

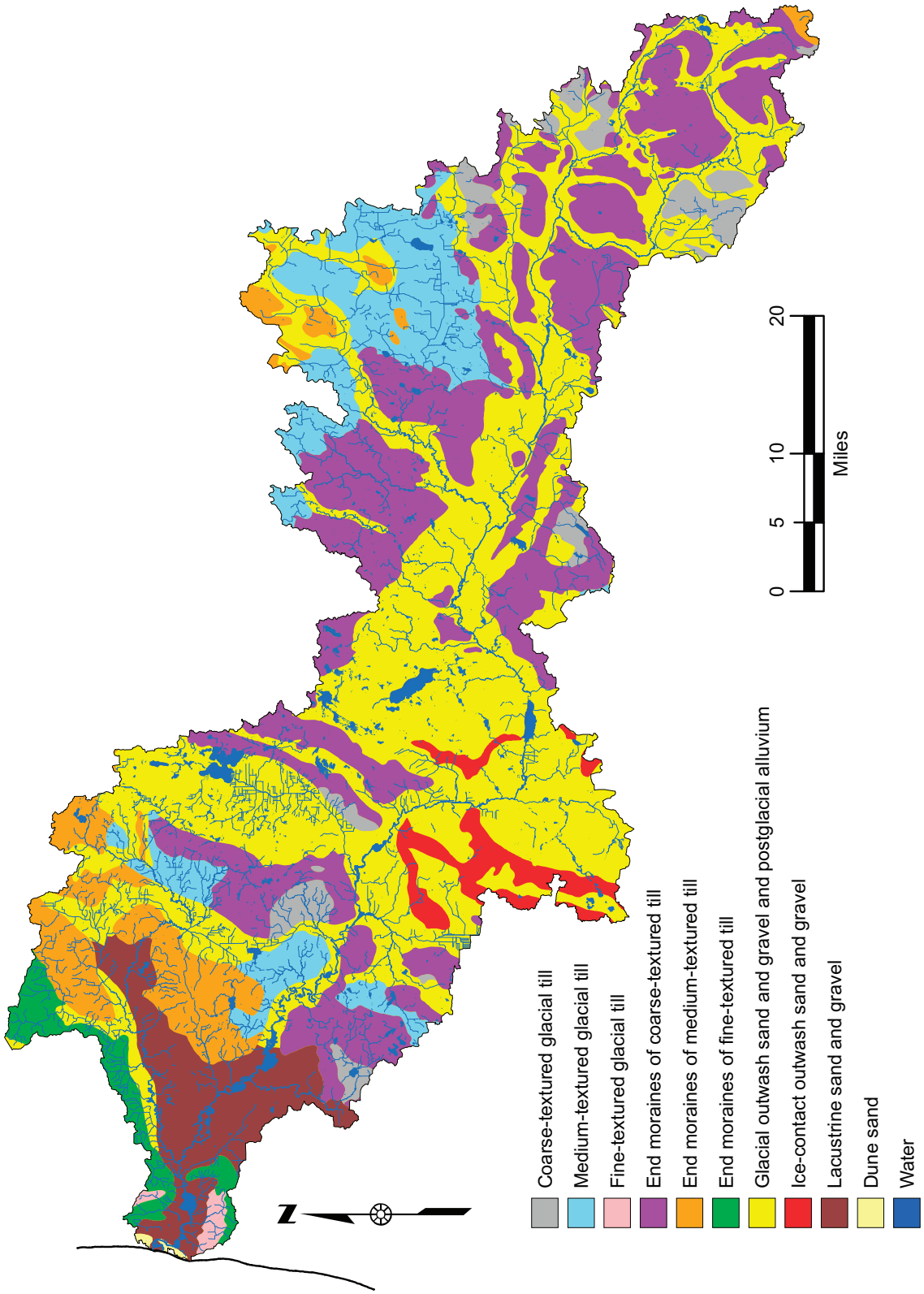


Figure 5.–Surficial geology of the Kalamazoo River watershed.

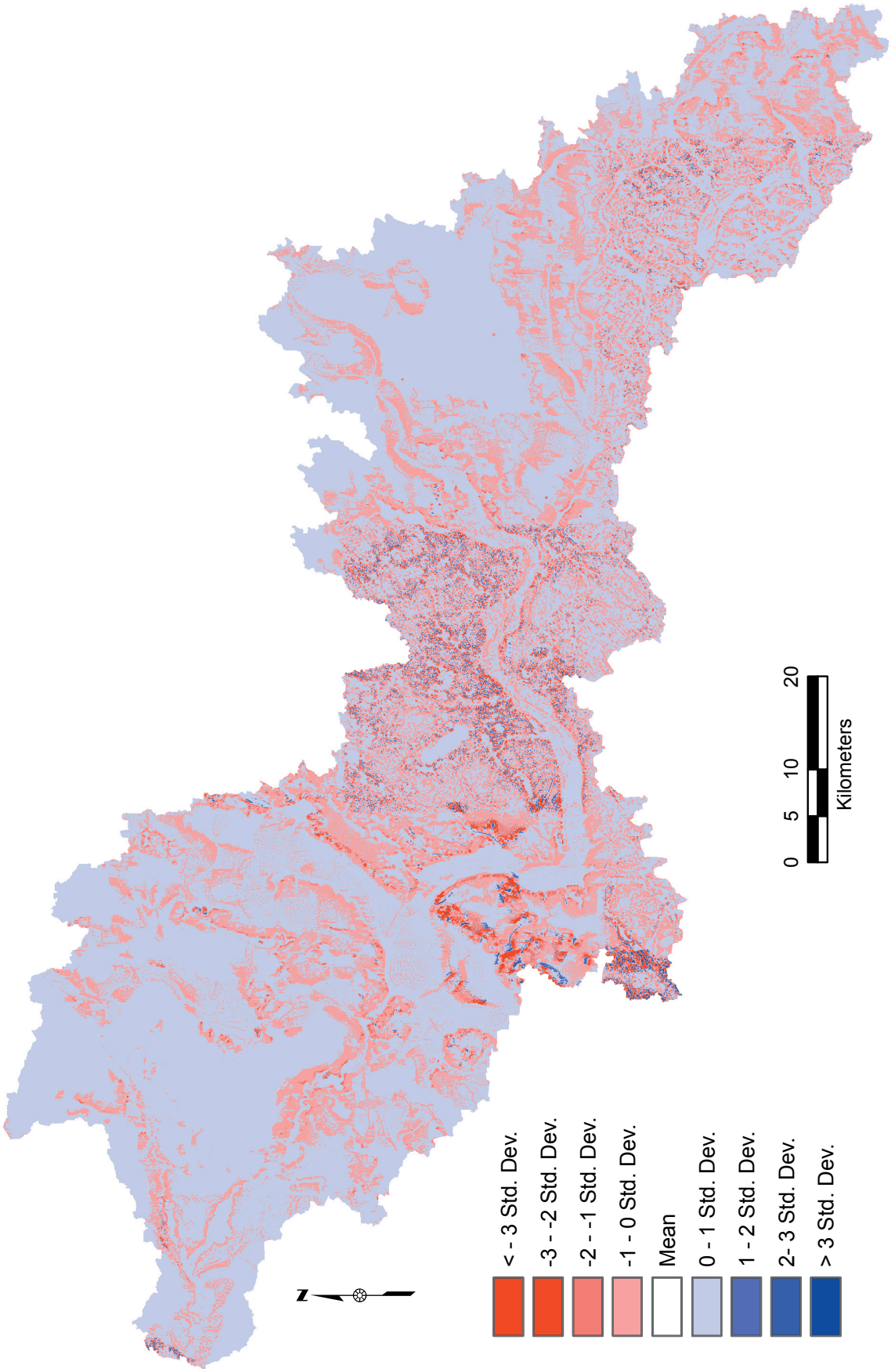


Figure 6.–Ground water discharge for the Kalamazoo River watershed.

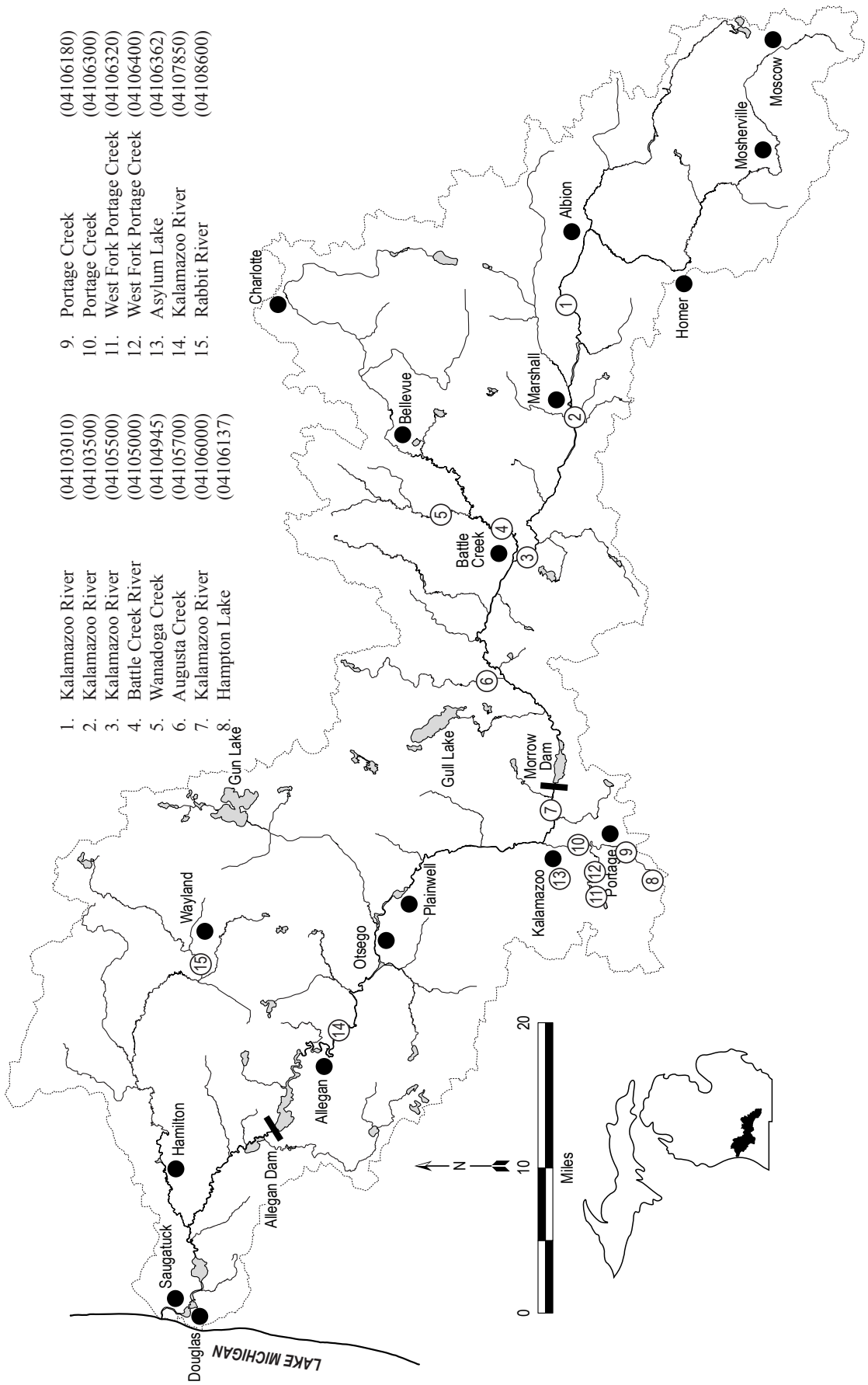


Figure 7.–Location of United States Geological Survey (USGS) continuous gauges in Kalamazoo River watershed. USGS identification number in parentheses.

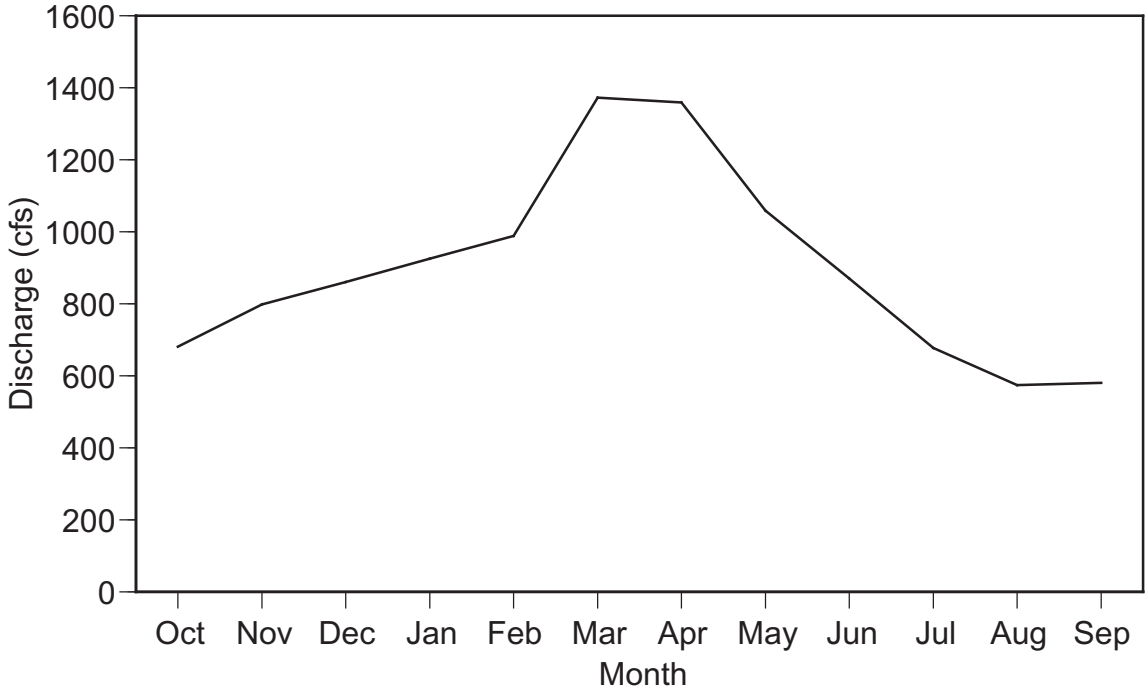


Figure 8.–Mean monthly discharge for the Kalamazoo River at Comstock for period of record (1931-1999). Data are shown from October through September, a traditional water year. Data from: United States Geological Survey.

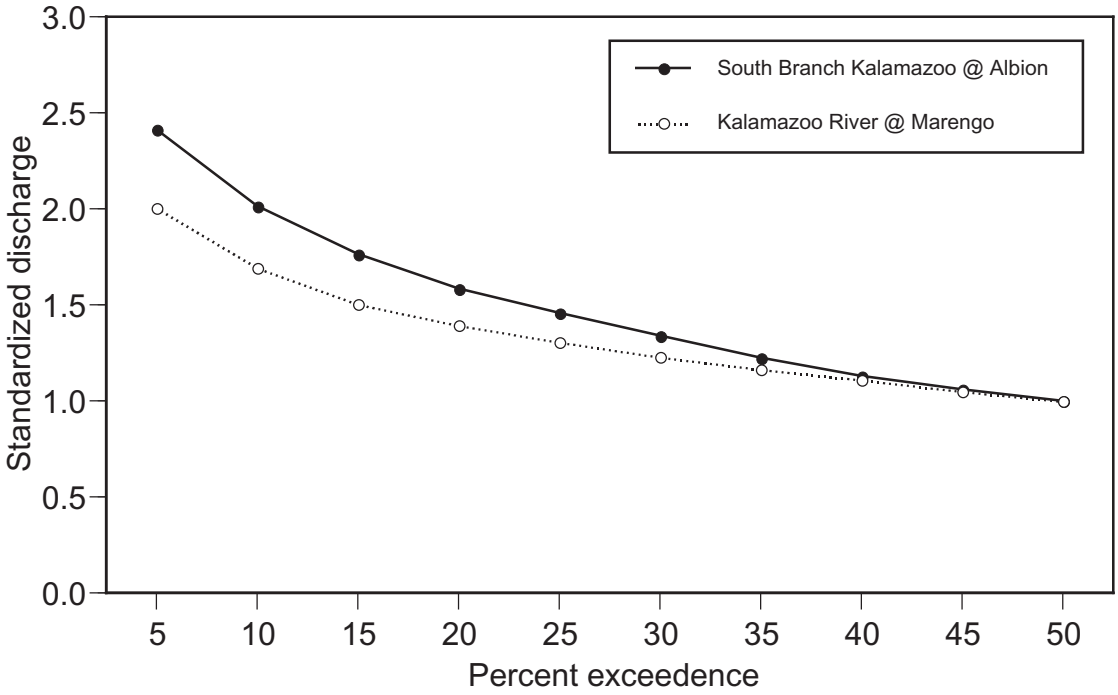


Figure 9.–Standardized high flow exceedence curves for Kalamazoo River in the headwaters and upper mainstem segments. Standardized discharge is the discharge (Q)/ median (50% Q) discharge. Exceedence curves represent the probability of a discharge exceeding a given value. Data from United States Geological Survey gauge stations for period of record.

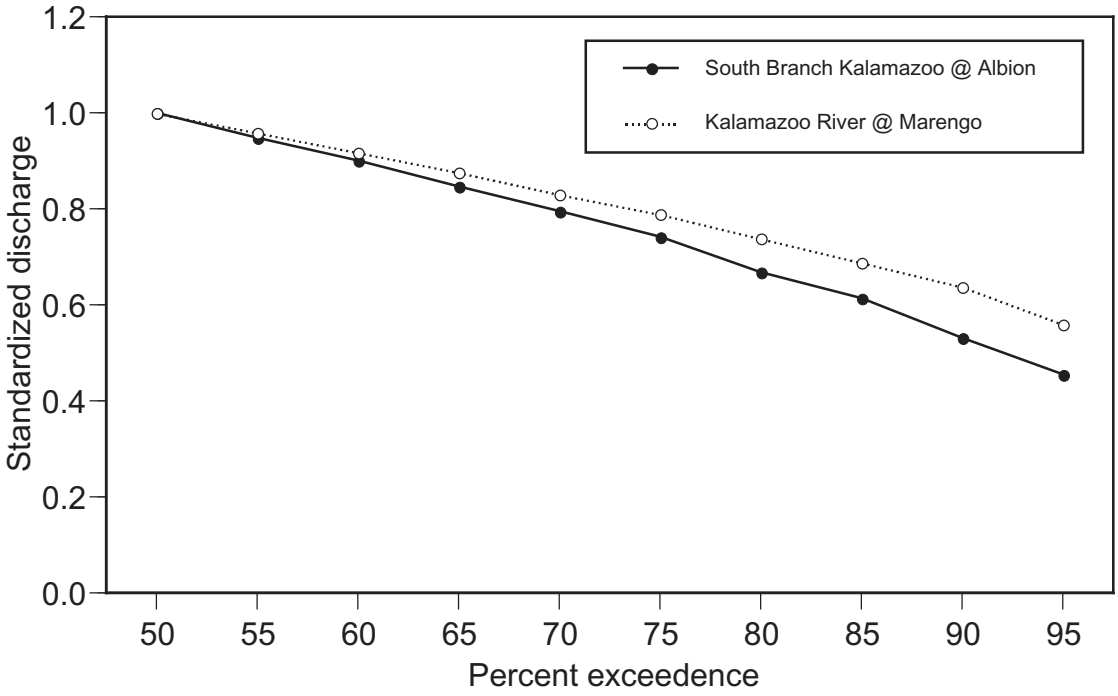


Figure 10.–Standardized low flow exceedence curves for Kalamazoo River in the headwaters and upper mainstem segments. Standardized discharge is the discharge (Q)/ median (50% Q) discharge. Exceedence curves represent the probability of a discharge exceeding a given value. Data from United States Geological Survey gauge stations for period of record.

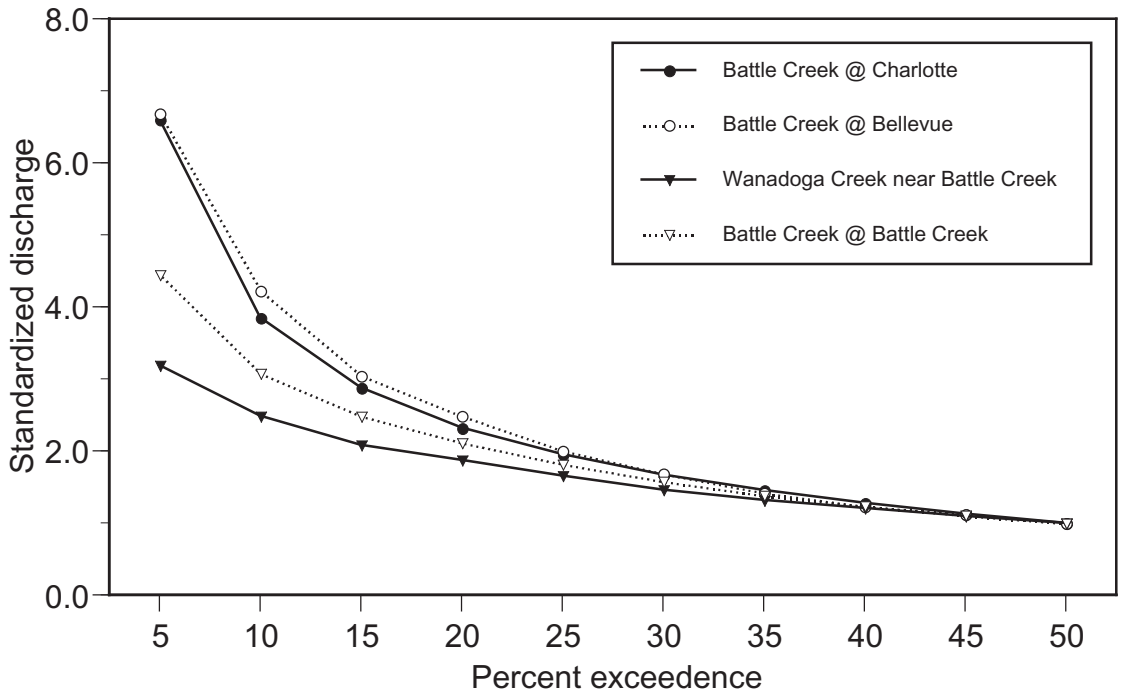


Figure 11.–Standardized high flow exceedence curves for the Battle and Wanadoga creeks in the middle mainstem segment. Standardized discharge is the discharge (Q)/ median (50% Q) discharge. Exceedence curves represent the probability of a discharge exceeding a given value. Data from United States Geological Survey gauge stations for period of record.

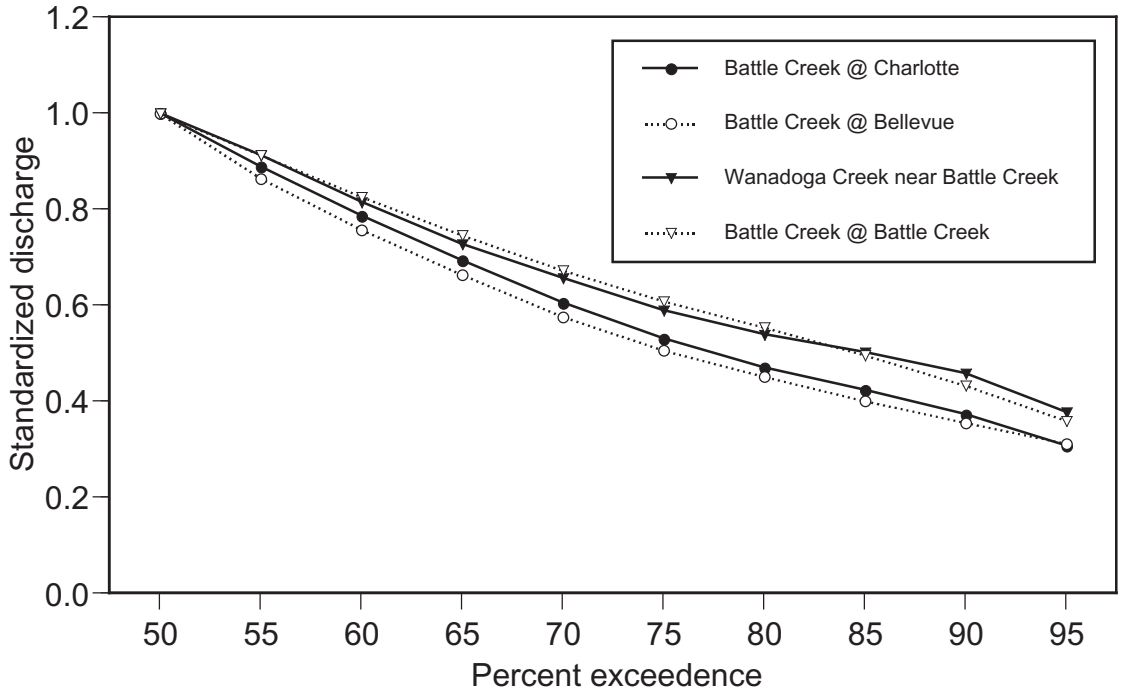


Figure 12.–Standardized low flow exceedence curves for the Battle and Wanadoga creeks in the middle mainstem segment. Standardized discharge is the discharge (Q)/ median (50% Q) discharge. Exceedence curves represent the probability of a discharge exceeding a given value. Data from United States Geological Survey gauge stations for period of record.

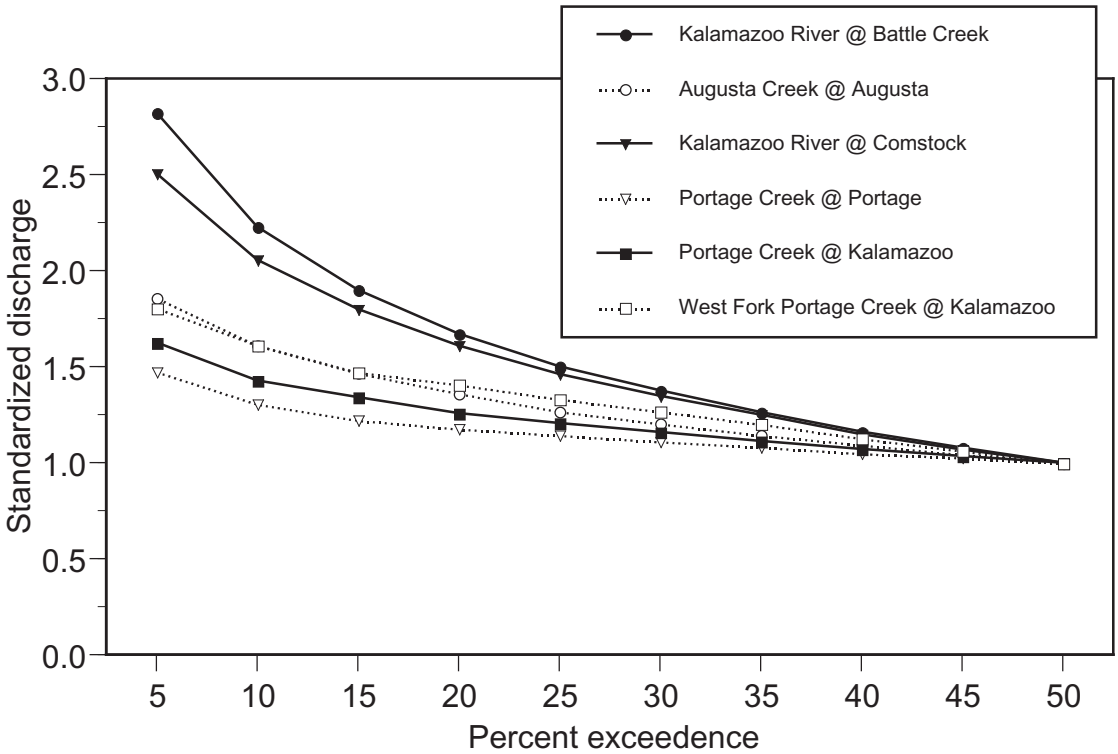


Figure 13.–Standardized high flow exceedence curves for Kalamazoo River and tributaries within the middle mainstem segment. Standardized discharge is the discharge (Q)/ median (50% Q) discharge. Exceedence curves represent the probability of a discharge exceeding a given value. Data from United States Geological Survey gauge stations for period of record.

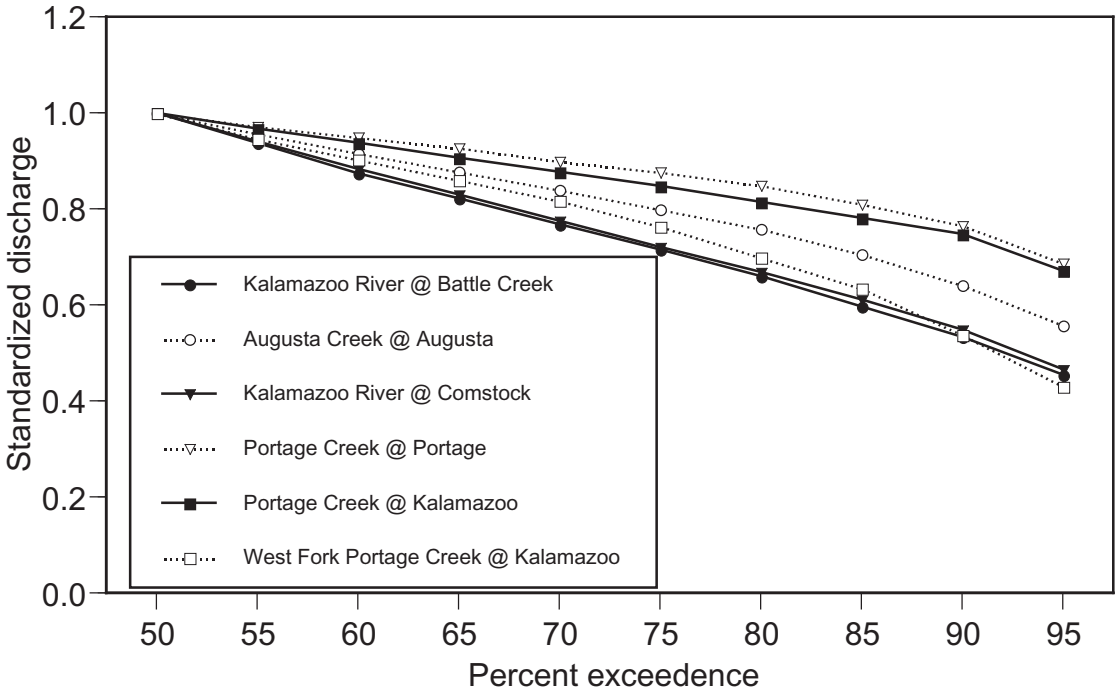


Figure 14.–Standardized low flow exceedence curves for Kalamazoo River and tributaries within the middle mainstem segment. Standardized discharge is the discharge (Q)/ median (50% Q) discharge. Exceedence curves represent the probability of a discharge exceeding a given value. Data from United States Geological Survey gauge stations for period of record.