

[Excerpted from Low-Flow, Base-Flow, and Mean-Flow Regression Equations for Pennsylvania Streams, USGS Report SIR-2006-5130 by Stuckey.]

Table 5. Summary of basin characteristics used to develop low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams.

[mi², square miles; mi/mi², miles per square mile; -- basin characteristic not significant]

| Low-flow region ¹ or statewide equation | Range of basin characteristic variables | | | | | | | | | |
|---|---|--------------------------|-----------------------------|--|--|-----------------------------|-----------------------|---------------------------------|-----------------------------|--------------------------|
| | Drainage area (mi ²) | Basin slope (degrees) | Mean elevation (feet) | Mean annual precipitation (inches) | Stream density (mi/mi ²) | Soil thickness (feet) | Percent glaciation | Percent carbonate bedrock | Percent forested area | Percent urban area |
| Region 1 | 4.78 - 1,150 | 1.7 - 6.4 | -- | -- | -- | 4.13 - 5.21 | -- | -- | -- | 0 - 89 |
| Region 2 | 4.93 - 1,280 | -- | -- | 35.0 - 50.4 | 0.51 - 3.1 | 3.32 - 5.65 | -- | 0 - 99 | -- | -- |
| Region 3 | 2.33 - 1,720 | -- | 898 - 2,700 | 38.7 - 47.9 | -- | -- | -- | -- | -- | -- |
| Region 4 | 2.26 - 1,400 | -- | 1,050 - 2,580 | -- | -- | -- | -- | -- | -- | -- |
| Region 5 | 4.84 - 982 | -- | -- | 33.1 - 47.1 | -- | -- | 0 - 100 | -- | 41 - 100 | -- |
| 10-year base flow | 2.26 - 1,720 | -- | -- | 33.1 - 50.4 | -- | -- | -- | 0 - 99 | 5.1 - 100 | 0 - 89 |
| 25-year base flow | 2.26 - 1,720 | -- | -- | 33.1 - 50.4 | -- | -- | -- | 0 - 99 | 5.1 - 100 | 0 - 89 |
| 50-year base flow | 2.26 - 1,720 | -- | -- | 33.1 - 50.4 | -- | -- | -- | 0 - 99 | 5.1 - 100 | 0 - 89 |
| Harmonic mean | 2.26 - 1,720 | -- | -- | 33.1 - 50.4 | -- | -- | -- | 0 - 99 | 5.1 - 100 | 0 - 89 |
| Mean annual flow | 2.26 - 1,720 | -- | 130 - 2,700 | 33.1 - 50.4 | -- | -- | -- | -- | 5.1 - 100 | 0 - 89 |

¹Regions are shown on figure 3.