

# Appendix 3 – Baseflow Characteristics Tables

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**Table 1 - HCDN Piedmont Gauges in the Chesapeake Bay Watershed**

| Gauge Name                 | USGS Gauge Numer | Water Year POR | K     | Kb     | BFI   | Q (in) | BF (in) | RORA (in) |
|----------------------------|------------------|----------------|-------|--------|-------|--------|---------|-----------|
| WestConewago               | 01574000         | 1929-1959      | 39.3  | 0.9140 | 0.425 | 15.06  | 6.41    | 8.52      |
| SladeGlyndon               | 01583000         | 1948-1981      | 83.9  | 0.9257 | 0.717 | 15.59  | 11.18   | 13.54     |
| DeepCreekMannboro          | 02041000         | 1947-1988      | 57.1  | 0.9282 | 0.482 | 12.89  | 6.21    | 7.64      |
| JamesRiverCartersville     | 02035000         | 1925-1979      | 45.1  | 0.9341 | 0.581 | 14.86  | 8.63    | 10.49     |
| RappahannockRemington      | 01664000         | 1943-1988      | 55.1  | 0.9346 | 0.553 | 14.79  | 8.18    | 10.88     |
| SladeGlyndon               | 01583000         | 1948-1981      | 83.9  | 0.9257 | 0.717 | 15.59  | 11.18   | 13.54     |
| HazelRixeyville            | 01663500         | 1943-1988      | 51.7  | 0.9389 | 0.563 | 16.08  | 9.05    | 12.38     |
| PatuxentUnity              | 01591000         | 1945-1988      | 81.0  | 0.9395 | 0.630 | 15.21  | 9.58    | 11.89     |
| RappahannockFredericksburg | 01668000         | 1911-1988      | 61.1  | 0.9409 | 0.531 | 14.01  | 7.44    | 9.28      |
| HolidayCreekAnderson       | 02038850         | 1967-1988      | 80.7  | 0.9434 | 0.553 | 13.68  | 7.57    | 9.32      |
| BigPipeBruceville          | 01639500         | 1948-1988      | 65.2  | 0.9422 | 0.564 | 14.69  | 8.28    | 10.53     |
| BennettCreek               | 01643500         | 1967-1988      | 71.7  | 0.9444 | 0.578 | 15.41  | 8.92    | 11.42     |
| RapidanCulpeper            | 01667500         | 1931-1988      | 54.6  | 0.9446 | 0.569 | 15.13  | 8.61    | 11.55     |
| PotomacAdjustedDC          | 01646502         | 1931-1988      | 54.9  | 0.9448 | 0.576 | 13.52  | 7.79    | 9.18      |
| BigPipeBruceville          | 01639500         | 1948-1988      | 65.2  | 0.9422 | 0.564 | 14.69  | 8.28    | 10.53     |
| RobinsonLocust             | 01666500         | 1944-1988      | 58.7  | 0.9454 | 0.584 | 16.68  | 9.74    | 13.09     |
| SenecaDawsonville          | 01645000         | 1931-1975      | 86.7  | 0.9473 | 0.614 | 13.17  | 8.09    | 9.79      |
| AppomattoxFarmville        | 02039500         | 1927-1988      | 82.7  | 0.9485 | 0.537 | 12.82  | 6.89    | 7.85      |
| BigElkCreek                | 01495000         | 1933-1988      | 108.7 | 0.9499 | 0.624 | 17.77  | 11.09   | 12.66     |
| SlateRiverArvonvia         | 02030500         | 1937-1988      | 81.2  | 0.9499 | 0.519 | 13.73  | 7.12    | 8.35      |
| HardwareRiver              | 02030000         | 1939-1988      | 84.6  | 0.9524 | 0.588 | 14.98  | 8.81    | 11.08     |
| PrincipioRiver             | 01496200         | 1968-1988      | 103.9 | 0.9542 | 0.537 | 18.59  | 9.98    | 11.61     |
| BuffaloRiverTye            | 02027800         | 1961-1988      | 75.2  | 0.9557 | 0.612 | 15.59  | 9.53    | 12.65     |
| PatapscoNBranch            | 01586500         | 1928-1953      | 85.7  | 0.9577 | 0.677 | 15.36  | 10.39   | 12.57     |
| WesternRun                 | 01583500         | 1945-1988      | 114.9 | 0.9607 | 0.716 | 15.53  | 11.12   | 13.19     |
| LittleFallsBlueMount       | 01582000         | 1945-1988      | 115.6 | 0.9617 | 0.729 | 17.41  | 12.70   | 15.07     |
| DeerCreekRocks             | 01580000         | 1927-1988      | 108.7 | 0.9640 | 0.705 | 17.82  | 12.57   | 14.89     |
| <b>Minimum</b>             |                  |                | 39.3  | 0.9140 | 0.425 | 12.82  | 6.21    | 7.64      |
| <b>Maximum</b>             |                  |                | 115.6 | 0.9640 | 0.729 | 18.59  | 12.70   | 15.07     |
| <b>Mean</b>                |                  |                | 76.2  | 0.9441 | 0.594 | 15.21  | 9.09    | 11.24     |
| <b>Median</b>              |                  |                | 80.7  | 0.9446 | 0.578 | 15.13  | 8.81    | 11.42     |
| <b>Standard Deviation</b>  |                  |                | 21.39 | 0.0119 | 0.076 | 1.50   | 1.75    | 2.05      |

**Table 2 - All HCDN Gauges in the Chesapeake Bay Watershed**

| Gauge Name              | USGS Gauge Number | Water Year POR | K     | Kb     | BFI   | Q (in) | BF (in) | RORA (in) |
|-------------------------|-------------------|----------------|-------|--------|-------|--------|---------|-----------|
| AppomattoxFarmville     | 02039500          | 1927-1988      | 82.7  | 0.9485 | 0.537 | 12.82  | 6.89    | 7.85      |
| AughwickCreek           | 01564500          | 1939-1988      | 37.0  | 0.9103 | 0.434 | 16.13  | 7.00    | 11.47     |
| BackCreekJones          | 1614000           | 1939-1975      | 34.3  | 0.9067 | 0.410 | 11.66  | 4.78    | 7.93      |
| Beaverdam               | 01492000          | 1951-1981      | 32.1  | 0.8777 | 0.394 | 15.77  | 6.22    | 8.62      |
| BennettCreek            | 01643500          | 1967-1988      | 71.7  | 0.9444 | 0.578 | 15.41  | 8.92    | 11.42     |
| BigElkCreek             | 01495000          | 1933-1988      | 108.7 | 0.9499 | 0.624 | 17.77  | 11.09   | 12.66     |
| BigPipeBruceville       | 01639500          | 1948-1988      | 65.2  | 0.9422 | 0.564 | 14.69  | 8.28    | 10.53     |
| BlockhouseCreek         | 01549500          | 1941-1988      | 37.7  | 0.9094 | 0.456 | 20.88  | 9.53    | 15.96     |
| BuffaloRiverTye         | 02027800          | 1961-1988      | 75.2  | 0.9557 | 0.612 | 15.59  | 9.53    | 12.65     |
| BullPasture             | 02015700          | 1961-1988      | 67.5  | 0.9382 | 0.543 | 18.20  | 9.88    | 13.44     |
| ButternutCreek          | 01502000          | 1939-1988      | 52.0  | 0.9274 | 0.517 | 22.54  | 11.65   | 17.49     |
| CacaponRiverWV          | 01611500          | 1924-1988      | 45.0  | 0.9347 | 0.458 | 11.86  | 5.43    | 7.93      |
| CalfPasture             | 02020500          | 1939-1988      | 32.6  | 0.9132 | 0.402 | 15.53  | 6.25    | 10.44     |
| CatoctinMiddletown      | 01637500          | 1948-1988      | 39.5  | 0.9208 | 0.515 | 15.29  | 7.88    | 12.51     |
| CedarCreek              | 01634500          | 1938-1988      | 40.1  | 0.9185 | 0.462 | 12.50  | 5.78    | 8.90      |
| CharlotteCreek          | 01498500          | 1939-1975      | 46.9  | 0.9221 | 0.516 | 20.43  | 10.54   | 16.28     |
| ChemungRiver            | 01531000          | 1916-1948      | 48.3  | 0.9227 | 0.439 | 13.74  | 6.03    | 7.91      |
| ChenangoRiver           | 01512500          | 1914-1941      | 51.7  | 0.9284 | 0.517 | 22.19  | 11.48   | 15.60     |
| Choptank                | 01491000          | 1949-1983      | 57.6  | 0.9279 | 0.526 | 15.83  | 8.32    | 10.88     |
| ClearfieldCreekDimeling | 01541500          | 1914-1960      | 39.2  | 0.9117 | 0.485 | 21.08  | 10.23   | 14.94     |
| ConococheagueFairview   | 01614500          | 1929-1988      | 47.4  | 0.9439 | 0.559 | 16.15  | 9.03    | 12.84     |
| CowanesqueRiver         | 01520000          | 1952-1979      | 39.5  | 0.9064 | 0.398 | 13.41  | 5.34    | 8.28      |
| CowPasture              | 02016000          | 1926-1988      | 59.0  | 0.9393 | 0.494 | 15.52  | 7.66    | 10.16     |
| Crabtree                | 01597000          | 1949-1981      | 34.6  | 0.9087 | 0.478 | 23.55  | 11.25   | 19.58     |
| CraigCreekParr          | 02018000          | 1926-1988      | 54.0  | 0.9373 | 0.495 | 15.91  | 7.87    | 11.13     |
| DeepCreekMannboro       | 02041000          | 1947-1988      | 57.1  | 0.9282 | 0.482 | 12.89  | 6.21    | 7.64      |
| DeerCreekRocks          | 01580000          | 1927-1988      | 108.7 | 0.9640 | 0.705 | 17.82  | 12.57   | 14.89     |
| DragonSwamp             | 01669500          | 1944-1981      | 50.2  | 0.9202 | 0.595 | 13.72  | 8.16    | 11.03     |
| DunlapCovington         | 02013000          | 1929-1988      | 42.7  | 0.9265 | 0.448 | 13.81  | 6.19    | 9.18      |
| DunningCreekBelden      | 01560000          | 1940-1988      | 40.2  | 0.9148 | 0.462 | 17.92  | 8.29    | 12.77     |
| EvittsCreek             | 01603500          | 1933-1982      | 49.1  | 0.9202 | 0.510 | 14.57  | 7.42    | 11.67     |
| FishingCreekBloomsburg  | 01539000          | 1939-1988      | 48.4  | 0.9249 | 0.510 | 23.69  | 12.08   | 17.96     |
| FishingCreekLewistown   | 01641500          | 1948-1984      | 62.7  | 0.9356 | 0.640 | 22.04  | 14.11   | 21.33     |
| FiveMileCreek           | 01528000          | 1938-1988      | 44.6  | 0.9115 | 0.411 | 15.31  | 6.29    | 9.56      |
| FrankstownBranchJuniata | 01556000          | 1917-1988      | 44.8  | 0.9338 | 0.546 | 18.36  | 10.02   | 13.83     |
| GeorgesCreekFranklin    | 01599000          | 1930-1977      | 41.1  | 0.9114 | 0.495 | 14.95  | 7.40    | 12.13     |
| GooseCreekLeesburg      | 01644000          | 1931-1988      | 47.3  | 0.9205 | 0.496 | 12.82  | 6.35    | 8.94      |
| HardwareRiver           | 02030000          | 1939-1988      | 84.6  | 0.9524 | 0.588 | 14.98  | 8.81    | 11.08     |
| HazelRixeyville         | 01663500          | 1943-1988      | 51.7  | 0.9389 | 0.563 | 16.08  | 9.05    | 12.38     |
| HolidayCreekAnderson    | 02038850          | 1967-1988      | 80.7  | 0.9434 | 0.553 | 13.68  | 7.57    | 9.32      |
| JamesRiverCartersville  | 02035000          | 1925-1979      | 45.1  | 0.9341 | 0.581 | 14.86  | 8.63    | 10.49     |

| Gauge Name                 | USGS Gauge Number | Water Year POR | K     | Kb     | BFI   | Q (in) | BF (in) | RORA (in) |
|----------------------------|-------------------|----------------|-------|--------|-------|--------|---------|-----------|
| JuniataNewport             | 01567000          | 1901-1972      | 41.8  | 0.9183 | 0.549 | 17.17  | 9.43    | 12.00     |
| LittleFallsBlueMount       | 01582000          | 1945-1988      | 115.6 | 0.9617 | 0.729 | 17.41  | 12.70   | 15.07     |
| LittleJuniataSpruce        | 01558000          | 1939-1988      | 50.0  | 0.9419 | 0.589 | 23.00  | 13.56   | 19.78     |
| MahantangoCreek            | 01555500          | 1930-1988      | 39.8  | 0.9246 | 0.494 | 18.74  | 9.27    | 14.73     |
| MarshCreekBlanchard        | 01547700          | 1956-1988      | 32.9  | 0.9061 | 0.456 | 17.97  | 8.20    | 14.37     |
| MarshRunGrimes             | 01617800          | 1964-1988      | 98.3  | 0.9509 | 0.750 | 8.76   | 6.57    | 8.47      |
| MarshyHope                 | 01488500          | 1944-1968      | 72.7  | 0.9352 | 0.485 | 15.90  | 7.71    | 10.20     |
| MattaponiBowling           | 01674000          | 1943-1988      | 42.5  | 0.9143 | 0.503 | 12.55  | 6.32    | 7.65      |
| MonocacyBridgeport         | 01639000          | 1943-1988      | 34.7  | 0.8994 | 0.333 | 15.95  | 5.31    | 7.81      |
| Nanticoke                  | 01487000          | 1944-1969      | 92.0  | 0.9549 | 0.680 | 16.18  | 11.00   | 14.08     |
| NorthPotomacSteyer         | 01595000          | 1957-1988      | 52.1  | 0.9060 | 0.502 | 32.11  | 16.12   | 22.76     |
| NorthRiver                 | 01590000          | 1933-1974      | 77.4  | 0.9291 | 0.702 | 16.24  | 11.40   | 13.52     |
| OwegoCreek                 | 01514000          | 1931-1977      | 49.8  | 0.9236 | 0.448 | 20.36  | 9.13    | 14.01     |
| OwensCreek                 | 01640500          | 1932-1984      | 44.6  | 0.9242 | 0.549 | 21.69  | 11.90   | 18.12     |
| PatapscoNBranch            | 01586500          | 1928-1953      | 85.7  | 0.9577 | 0.677 | 15.36  | 10.39   | 12.57     |
| PattersonHeadsville        | 01604500          | 1939-1988      | 36.9  | 0.9107 | 0.420 | 10.85  | 4.55    | 7.91      |
| PatuxentUnity              | 01591000          | 1945-1988      | 81.0  | 0.9395 | 0.630 | 15.21  | 9.58    | 11.89     |
| PennsCreek                 | 01555000          | 1930-1988      | 51.5  | 0.9421 | 0.577 | 19.68  | 11.35   | 16.83     |
| PineCreekCedar             | 01548500          | 1919-1988      | 41.9  | 0.9196 | 0.487 | 18.71  | 9.12    | 14.47     |
| Piscataway                 | 01653600          | 1966-1988      | 54.2  | 0.9008 | 0.473 | 15.49  | 7.32    | 9.38      |
| PotomacAdjustedDC          | 01646502          | 1931-1988      | 54.9  | 0.9448 | 0.576 | 13.52  | 7.79    | 9.18      |
| PotomacHancock             | 01613000          | 1933-1988      | 50.3  | 0.9324 | 0.513 | 13.79  | 7.08    | 9.06      |
| PotomacPawPaw              | 01610000          | 1939-1980      | 53.0  | 0.9325 | 0.521 | 14.23  | 7.41    | 9.17      |
| PottsCreekCovington        | 02014000          | 1929-1956      | 43.2  | 0.9258 | 0.503 | 15.37  | 7.74    | 12.04     |
| PottsCreekCovington        | 02014000          | 1966-1988      | 46.0  | 0.9316 | 0.508 | 16.47  | 8.37    | 12.62     |
| PrincipioRiver             | 01496200          | 1968-1988      | 103.9 | 0.9542 | 0.537 | 18.59  | 9.98    | 11.61     |
| RapidanCulpeper            | 01667500          | 1931-1988      | 54.6  | 0.9446 | 0.569 | 15.13  | 8.61    | 11.55     |
| RappahannockFredericksburg | 01668000          | 1911-1988      | 61.1  | 0.9409 | 0.531 | 14.01  | 7.44    | 9.28      |
| RappahannockRemington      | 01664000          | 1943-1988      | 55.1  | 0.9346 | 0.553 | 14.79  | 8.18    | 10.88     |
| RaystownBranchJuniata      | 01562000          | 1912-1988      | 49.8  | 0.9318 | 0.499 | 16.40  | 8.19    | 11.63     |
| RobinsonLocust             | 01666500          | 1944-1988      | 58.7  | 0.9454 | 0.584 | 16.68  | 9.74    | 13.09     |
| SenecaDawsonville          | 01645000          | 1931-1975      | 86.7  | 0.9473 | 0.614 | 13.17  | 8.09    | 9.79      |
| ShenandoahCootes           | 01632000          | 1926-1988      | 36.6  | 0.9114 | 0.358 | 12.46  | 4.46    | 7.87      |
| ShenandoahFrontRoyal       | 01631000          | 1961-1988      | 54.3  | 0.9528 | 0.593 | 12.95  | 7.68    | 10.29     |
| ShenandoahStrasburg        | 01634000          | 1926-1988      | 56.0  | 0.9473 | 0.546 | 10.37  | 5.66    | 7.75      |
| ShermanCreek               | 01568000          | 1930-1988      | 43.0  | 0.9248 | 0.498 | 18.76  | 9.34    | 14.21     |
| Sinnemahoning              | 01543500          | 1939-1988      | 32.9  | 0.9102 | 0.474 | 22.49  | 10.66   | 16.88     |
| SladeGlyndon               | 01583000          | 1948-1981      | 83.9  | 0.9257 | 0.717 | 15.59  | 11.18   | 13.54     |
| SlateRiverArvonnia         | 02030500          | 1937-1988      | 81.2  | 0.9499 | 0.519 | 13.73  | 7.12    | 8.35      |
| SouthPotomacSpringfield    | 01608500          | 1929-1988      | 55.7  | 0.9348 | 0.495 | 12.13  | 6.00    | 8.07      |
| StClements                 | 01661050          | 1969-1988      | 47.0  | 0.8987 | 0.506 | 14.62  | 7.40    | 9.40      |
| StMarys                    | 01661500          | 1947-1988      | 50.6  | 0.9086 | 0.464 | 13.45  | 6.24    | 8.60      |
| SusquehannaConklin         | 01503000          | 1914-1988      | 50.6  | 0.9289 | 0.542 | 21.80  | 11.83   | 16.64     |

| Gauge Name            | USGS Gauge Number | Water Year POR | K     | Kb     | BFI   | Q (in) | BF (in) | RORA (in) |
|-----------------------|-------------------|----------------|-------|--------|-------|--------|---------|-----------|
| TiogaLindley          | 01520500          | 1931-1978      | 47.6  | 0.9144 | 0.423 | 14.21  | 6.02    | 8.74      |
| TiogaRiver            | 01518000          | 1939-1977      | 36.5  | 0.9180 | 0.444 | 15.95  | 7.08    | 10.60     |
| TowandaCreek          | 01532000          | 1915-1988      | 41.4  | 0.9083 | 0.417 | 18.07  | 7.53    | 11.91     |
| TunkhannockCreek      | 01534000          | 1915-1988      | 53.0  | 0.9132 | 0.469 | 19.10  | 8.96    | 12.63     |
| Wapwallopen           | 01538000          | 1920-1988      | 54.9  | 0.9258 | 0.552 | 20.06  | 11.06   | 16.23     |
| WestBranchSusquehanna | 01541000          | 1914-1988      | 41.4  | 0.9123 | 0.481 | 24.03  | 11.56   | 16.27     |
| WestConewago          | 01574000          | 1929-1959      | 39.3  | 0.9140 | 0.425 | 15.06  | 6.41    | 8.52      |
| WesternRun            | 01583500          | 1945-1988      | 114.9 | 0.9607 | 0.716 | 15.53  | 11.12   | 13.19     |
| WillsCreekCumberland  | 01601500          | 1930-1988      | 46.2  | 0.9250 | 0.482 | 18.07  | 8.71    | 12.79     |
| YoungWomansCreek      | 01545600          | 1966-1988      | 37.8  | 0.9205 | 0.512 | 21.74  | 11.14   | 18.65     |

**Table 3 - Maryland Dept. Planning Gauges**

| Gauge Name               | USGS Gauge Numer | Water Year POR | K   | Kb     | BFI   | Q (in) | BF (in) | RORA (in) |
|--------------------------|------------------|----------------|-----|--------|-------|--------|---------|-----------|
| 'BigElkCreek'            | 1495000          | 1933-2002      | 114 | 0.9506 | 0.624 | 17.7   | 11.0    | 12.6      |
| 'DeerCreekatRocksMD'     | 1580000          | 1927-2002      | 109 | 0.9643 | 0.709 | 17.8   | 12.6    | 15.0      |
| 'LittleFallsBlueMount'   | 1582000          | 1945-2002      | 131 | 0.9618 | 0.733 | 17.3   | 12.7    | 15.0      |
| 'SladeRun'               | 1583000          | 1948-1981      | 84  | 0.9257 | 0.717 | 15.6   | 11.2    | 13.5      |
| 'WesternRun'             | 1583500          | 1945-2002      | 115 | 0.9616 | 0.722 | 15.6   | 11.2    | 13.3      |
| 'LittleGunpowderLaurel'  | 1584500          | 1928-1970      | 115 | 0.9502 | 0.676 | 16.6   | 11.2    | 13.0      |
| 'SouthBranchPatapsco'    | 1587500          | 1949-1980      | 101 | 0.9496 | 0.650 | 15.8   | 10.3    | 12.5      |
| 'GwynnsFallsVillaNova'   | 1589300          | 1958-1988      | 96  | 0.9311 | 0.522 | 16.2   | 8.4     | 9.5       |
| 'PatuxentUnity'          | 1591000          | 1945-2002      | 82  | 0.9405 | 0.634 | 15.1   | 9.6     | 11.9      |
| 'LittlePatuxentGuilford' | 1593500          | 1933-2002      | 91  | 0.9334 | 0.543 | 15.5   | 8.4     | 9.7       |
| 'PotomacRiverSteyer'     | 1595000          | 1957-2002      | 55  | 0.9117 | 0.521 | 32.1   | 16.7    | 23.1      |
| 'SavageRiverBarton'      | 1596500          | 1949-2002      | 34  | 0.9026 | 0.450 | 20.8   | 9.3     | 15.4      |
| 'CrabtreeCreekSwanton'   | 1597000          | 1949-1981      | 35  | 0.9087 | 0.478 | 23.6   | 11.2    | 19.6      |
| 'WillsCreekCumberland'   | 1601500          | 1930-2003      | 51  | 0.9264 | 0.483 | 18.4   | 8.9     | 12.7      |
| 'Conococheague'          | 1614500          | 1929-2002      | 49  | 0.9458 | 0.562 | 16.3   | 9.2     | 13.0      |
| 'AntietamSharpsburg'     | 1619500          | 1929-2002      | 91  | 0.9697 | 0.741 | 13.7   | 10.1    | 13.1      |
| 'CatoctinMiddletown'     | 1637500          | 1948-2002      | 45  | 0.9206 | 0.520 | 15.5   | 8.1     | 12.3      |
| 'MonocacyBridgeport'     | 1639000          | 1943-2002      | 34  | 0.8983 | 0.337 | 16.2   | 5.5     | 8.0       |
| 'BigPipeBruceville'      | 1639500          | 1948-2002      | 69  | 0.9426 | 0.568 | 15.0   | 8.5     | 10.7      |
| 'OwensCreek'             | 1640500          | 1932-1984      | 45  | 0.9242 | 0.549 | 21.8   | 12.0    | 18.2      |
| 'HuntingCreekJT'         | 1641000          | 1950-1991      | 54  | 0.9232 | 0.552 | 19.6   | 10.8    | 16.0      |
| 'LinganoreFrederick'     | 1642500          | 1935-1982      | 73  | 0.9455 | 0.585 | 14.1   | 8.3     | 10.7      |
| 'MonocacyJugFrederick'   | 1643000          | 1930-2002      | 51  | 0.9427 | 0.498 | 15.6   | 7.7     | 10.0      |
| 'BennettCreek'           | 1643500          | 1967-2002      | 73  | 0.9433 | 0.583 | 15.1   | 8.8     | 11.3      |
| 'SenecaCreek'            | 1645000          | 1931-2002      | 85  | 0.9497 | 0.598 | 14.5   | 8.7     | 10.5      |
| 'RockCreekDC'            | 1648000          | 1930-2002      | 73  | 0.9322 | 0.534 | 13.8   | 7.4     | 8.9       |
| 'BearCreek'              | 3076600          | 1965-2002      | 48  | 0.9196 | 0.499 | 25.0   | 12.5    | 18.7      |
| 'Casselman'              | 3078000          | 1948-2002      | 41  | 0.9095 | 0.502 | 25.9   | 13.0    | 19.0      |
| 'BrandywineCreek'        | 1481000          | 1912-1953      | 99  | 0.9557 | 0.667 | 18.3   | 12.2    | 14.1      |
| 'YellowBreechesPA'       | 1571500          | 1955-2002      | 98  | 0.9679 | 0.719 | 18.2   | 13.1    | 16.4      |
| 'BlackwaterWVA'          | 3066000          | 1922-2002      | 33  | 0.8955 | 0.467 | 31.8   | 14.9    | 21.0      |
| 'GooseCreekVA'           | 1644000          | 1931-2002      | 48  | 0.9223 | 0.500 | 12.9   | 6.5     | 9.0       |
| 'WillsCreekCumberland'   | 1601500          | 1930-2009      | 51  | 0.9266 | 0.482 | 18.4   | 8.9     | 12.8      |
| 'EvittsCreekCenterville' | 1603500          | 1933-1982      | 49  | 0.9202 | 0.510 | 14.6   | 7.4     | 11.7      |
| 'CacaponWV'              | 1611500          | 1924-1995      | 45  | 0.9356 | 0.463 | 11.9   | 5.5     | 8.0       |
| 'PattersonHeadsville'    | 1604500          | 1939-2010      | 38  | 0.9125 | 0.437 | 10.6   | 4.6     | 8.2       |
| 'YoughioghenyOakland'    | 3075500          | 1942-2011      | 40  | 0.9031 | 0.472 | 31.2   | 14.7    | 21.8      |

Taken from page 64 - 2007. The Water Resources Element: Planning for Water Supply and Wastewater and Stormwater Management. In *Models and Guidelines*. Baltimore: Maryland Department of Planning.

**Table 4 - Additional Maryland Gauges**

| Name                     | Gauge # | Water Year<br>POR | K     | Kb    | BFI   | Annual<br>Discharge<br>(in) | Annual<br>Baseflow<br>(in) | Annual<br>RORA<br>Recharge<br>(in) |
|--------------------------|---------|-------------------|-------|-------|-------|-----------------------------|----------------------------|------------------------------------|
| 'AnacostiaColesville'    | 1650500 | 1924-1983         | 77.4  | 0.922 | 0.539 | 14.6                        | 7.9                        | 9.3                                |
| 'AnacostiaHyattsville'   | 1651000 | 1939-2009         | 88.6  | 0.913 | 0.429 | 13.8                        | 5.9                        | 6.6                                |
| 'AntietamSharpsburg'     | 1619500 | 1929-2009         | 92.8  | 0.970 | 0.740 | 13.9                        | 10.3                       | 13.2                               |
| 'BearCreek'              | 3076600 | 1965-2009         | 44.8  | 0.919 | 0.494 | 25.5                        | 12.6                       | 19.2                               |
| 'BeaverdamMatthews'      | 1492000 | 1951-1981         | 32.1  | 0.878 | 0.394 | 15.8                        | 6.2                        | 8.6                                |
| 'BennettCreek'           | 1643500 | 1967-2009         | 70.2  | 0.943 | 0.581 | 15.4                        | 8.9                        | 11.5                               |
| 'BigElkCreek'            | 1495000 | 1933-2009         | 118.2 | 0.951 | 0.623 | 18.0                        | 11.2                       | 12.8                               |
| 'BigPipeBruceville'      | 1639500 | 1948-2009         | 70.3  | 0.943 | 0.564 | 15.3                        | 8.6                        | 10.9                               |
| 'BlackwaterRiverWVA'     | 3066000 | 1922-2009         | 35.5  | 0.896 | 0.470 | 32.4                        | 15.2                       | 21.2                               |
| 'BrandywineCreekOLD'     | 1481000 | 1912-1953         | 98.5  | 0.956 | 0.667 | 18.3                        | 12.2                       | 14.1                               |
| 'BrandywineCreekNEW'     | 1481000 | 1963-2009         | 119.4 | 0.960 | 0.652 | 20.3                        | 13.3                       | 15.5                               |
| 'Casselman'              | 3078000 | 1948-2009         | 40.1  | 0.910 | 0.498 | 26.3                        | 13.1                       | 19.3                               |
| 'CatoctinMiddletown'     | 1637500 | 1948-2009         | 44.9  | 0.921 | 0.520 | 15.7                        | 8.1                        | 12.5                               |
| 'ChoptankGreensboro'     | 1491000 | 1949-2009         | 55.0  | 0.936 | 0.542 | 16.3                        | 8.8                        | 11.8                               |
| 'Conococheague'          | 1614500 | 1929-2009         | 49.9  | 0.946 | 0.563 | 16.6                        | 9.3                        | 13.1                               |
| 'CrabtreeCreekSwanton'   | 1597000 | 1949-1981         | 34.6  | 0.909 | 0.478 | 23.6                        | 11.2                       | 19.6                               |
| 'DeerCreekatRocksMD'     | 1580000 | 1927-2009         | 115.9 | 0.965 | 0.708 | 18.1                        | 12.8                       | 15.1                               |
| 'FishingCreekLewistown'  | 1641500 | 1948-1984         | 62.7  | 0.936 | 0.640 | 22.0                        | 14.1                       | 21.3                               |
| 'GeorgesCreekFranklin'   | 1599000 | 1930-2009         | 43.7  | 0.920 | 0.499 | 15.7                        | 7.8                        | 12.6                               |
| 'HensonCreek.txt'        | 1653500 | 1949-1978         | 35.3  | 0.896 | 0.458 | 16.1                        | 7.4                        | 9.7                                |
| 'HuntingCreekJT'         | 1641000 | 1950-1991         | 54.4  | 0.923 | 0.552 | 19.6                        | 10.8                       | 16.0                               |
| 'JonesFallsSorrentoOld'  | 1589440 | 1967-1988         | 96.0  | 0.943 | 0.657 | 17.4                        | 11.4                       | 13.6                               |
| 'JonesFallsSorrentoNew'  | 1589440 | 1997-2010         | 86.3  | 0.947 | 0.622 | 16.4                        | 10.2                       | 12.2                               |
| 'LinganoreFrederick'     | 1642500 | 1935-1982         | 72.8  | 0.946 | 0.585 | 14.1                        | 8.3                        | 10.7                               |
| 'LittleFallsBlueMount'   | 1582000 | 1945-2009         | 131.1 | 0.962 | 0.734 | 17.6                        | 12.9                       | 15.3                               |
| 'LittlePatuxentGuilford' | 1593500 | 1933-2009         | 91.0  | 0.933 | 0.536 | 15.7                        | 8.4                        | 9.7                                |
| 'MarshRunGrimes'         | 1617800 | 1964-2009         | 100.9 | 0.953 | 0.750 | 8.6                         | 6.5                        | 8.4                                |
| 'MonocacyBridgeport'     | 1639000 | 1943-2009         | 36.0  | 0.899 | 0.339 | 16.5                        | 5.6                        | 8.0                                |
| 'MonocacyJugFrederick'   | 1643000 | 1930-2009         | 53.6  | 0.943 | 0.498 | 15.8                        | 7.9                        | 10.1                               |
| 'OwensCreek'             | 1640500 | 1932-1984         | 44.6  | 0.924 | 0.549 | 21.8                        | 12.0                       | 18.2                               |
| 'PatapscoReisterstown'   | 1586500 | 1928-1953         | 85.7  | 0.958 | 0.677 | 15.4                        | 10.4                       | 12.6                               |
| 'PatuxentUnity'          | 1591000 | 1945-2009         | 82.3  | 0.941 | 0.631 | 15.4                        | 9.7                        | 12.0                               |
| 'Piscataway'             | 1653600 | 1966-1995         | 59.0  | 0.891 | 0.474 | 15.3                        | 7.2                        | 9.3                                |
| 'PotomacAdjnearDC'       | 1646502 | 1931-2009         | 55.7  | 0.946 | 0.579 | 13.9                        | 8.1                        | 9.5                                |
| 'PotomacHancock'         | 1613000 | 1933-2009         | 55.7  | 0.938 | 0.526 | 14.0                        | 7.4                        | 9.3                                |
| 'PotomacPawPaw'          | 1610000 | 1939-2009         | 61.4  | 0.941 | 0.537 | 14.7                        | 7.9                        | 9.7                                |
| 'PotomacRiverSteyer'     | 1595000 | 1957-2009         | 52.9  | 0.914 | 0.526 | 32.3                        | 17.0                       | 23.5                               |
| 'PrincipioFurnace'       | 1496200 | 1968-1991         | 101.5 | 0.954 | 0.544 | 18.5                        | 10.1                       | 11.7                               |
| 'RockCreekDC'            | 1648000 | 1930-2010         | 74.9  | 0.930 | 0.524 | 14.1                        | 7.4                        | 9.0                                |

| Name                    | USGS #  | WY POR    | K     | Kb    | BFI   | Q (in.) | BF (in.) | RORA (in.) |
|-------------------------|---------|-----------|-------|-------|-------|---------|----------|------------|
| 'SavageRiverBarton'     | 1596500 | 1949-2009 | 33.5  | 0.904 | 0.447 | 21.1    | 9.4      | 15.5       |
| 'SouthBranchPatapsco'   | 1587500 | 1949-1980 | 101.4 | 0.950 | 0.650 | 15.8    | 10.3     | 12.5       |
| 'SenecaCreekDawson'     | 1645000 | 1931-2010 | 85.1  | 0.950 | 0.598 | 15.2    | 9.1      | 11.0       |
| 'SladeRun'              | 1583000 | 1948-1981 | 83.9  | 0.926 | 0.717 | 15.6    | 11.2     | 13.5       |
| 'StClements'            | 1661050 | 1969-1999 | 51.1  | 0.895 | 0.506 | 14.5    | 7.3      | 9.3        |
| 'StemmersRunOLD'        | 1585300 | 1960-1972 | 62.1  | 0.870 | 0.273 | 19.2    | 5.2      | 6.2        |
| 'StMarys'               | 1661500 | 1947-1995 | 48.4  | 0.906 | 0.454 | 13.6    | 6.2      | 8.7        |
| 'WesternBranchLargo'    | 1594500 | 1950-1974 | 42.3  | 0.898 | 0.452 | 14.3    | 6.5      | 9.1        |
| 'WesternRun'            | 1583500 | 1945-2009 | 117.1 | 0.962 | 0.721 | 15.7    | 11.3     | 13.4       |
| 'WhiteMarshRun'         | 1585100 | 1960-1989 | 50.7  | 0.902 | 0.330 | 20.6    | 6.8      | 8.2        |
| 'WintersRun'            | 1581700 | 1968-2009 | 110.4 | 0.951 | 0.655 | 20.3    | 13.3     | 15.4       |
| 'BeaverdamCockeysville' | 1583600 | 1983-2010 | 96.0  | 0.933 | 0.638 | 19.4    | 12.4     | 14.4       |
| 'EastBranchHerbertRun'  | 1589100 | 1958-1989 | 53.6  | 0.899 | 0.415 | 18.1    | 7.5      | 8.6        |
| 'LittleGunpowderLaurel' | 1584500 | 1928-1970 | 115.2 | 0.950 | 0.676 | 16.6    | 11.2     | 13.0       |
| 'NorthRiverAnnapolis'   | 1590000 | 1933-1974 | 77.4  | 0.929 | 0.702 | 16.2    | 11.4     | 13.5       |
| 'StemmersRunNEW'        | 1585300 | 1974-1989 | 55.6  | 0.908 | 0.242 | 20.6    | 5.0      | 5.8        |
| 'WattsBranch'           | 1645200 | 1958-1987 | 79.5  | 0.917 | 0.436 | 15.1    | 6.6      | 7.6        |
| 'WestBranchHerringRun'  | 1585200 | 1967-1987 | 57.1  | 0.918 | 0.370 | 17.4    | 6.4      | 7.4        |



**Table 5 - BES Gauges**

| Name                                 | Gauge # | Water Year POR | K   | Kb     | BFI   | Annual Discharge (in) | Annual Baseflow (in) | Annual RORA Recharge (in) |
|--------------------------------------|---------|----------------|-----|--------|-------|-----------------------|----------------------|---------------------------|
| Baisman Run                          | 1583580 | 2000-2010      | 93  | 0.9465 | 0.751 | 14.9                  | 11.2                 | 13.7                      |
| Dead Run at Franklinton, historic    | 1589330 | 1960-1987      | 42  | 0.8675 | 0.244 | 19.5                  | 4.8                  | 5.5                       |
| Dead Run at Franklinton, recent      | 1589330 | 1999-2009      | 88  | 0.9073 | 0.217 | 22.0                  | 4.8                  | 5.1                       |
| Gwynns Falls at Carroll Park         | 1589352 | 1999-2009      | 102 | 0.9377 | 0.448 | 18.2                  | 8.2                  | 8.8                       |
| Gwynns Falls at Delight              | 1589197 | 1999-2010      | 66  | 0.9483 | 0.503 | 16.6                  | 8.4                  | 9.8                       |
| Gwynns Falls at Glyndon              | 1589180 | 1999-2010      | 35  | 0.8532 | 0.296 | 13.8                  | 4.1                  | 6.4                       |
| Gwynns Falls at Villa Nova, historic | 1589300 | 1958-1987      | 102 | 0.9314 | 0.523 | 16.1                  | 8.4                  | 9.5                       |
| Gwynns Falls at Villa Nova, recent   | 1589300 | 1997-2009      | 87  | 0.9395 | 0.498 | 18.4                  | 9.2                  | 10.3                      |
| McDonogh                             | 1589238 | 2000-2010      | 51  | 0.8792 | 0.669 | 12.9                  | 8.7                  | 11.1                      |
| Moores Run                           | 1585230 | 1997-2010      | 42  | 0.9404 | 0.216 | 17.1                  | 3.7                  | 4.0                       |
| Pond Branch                          | 1583570 | 1999-2010      | 75  | 0.9249 | 0.768 | 16.1                  | 12.4                 | 15.5                      |
| Powder Mill                          | 1589305 | 2007-2009      | 34* | 0.8600 | 0.274 | 17.2                  | 4.7                  | 5.4                       |
| Scotts Level                         | 1589290 | 2006-2009      | 61* | 0.9174 | 0.327 | 15.9                  | 5.2                  | 6.2                       |

The minimum recession length parameter used in RECESS to determine K was set to 10 for these two gauges. This was changed because there were no recessions in this POR that fit the default criteria of a 12 day minimum length.