Supplement of "A multirate mass transfer model to represent the interaction of multicomponent biogeochemical processes between surface water and hyporheic zones (SWAT-MRMT-R 1.0)"

Yilin Fang1,*, Xingyuan Chen1, Jesus Gomez velez2, Xuesong Zhang3, Zhuoran Duan1, Glenn E. Hammond4, Amy E. Goldman1, Vanessa A. Garayburu-Caruso1, and Emily B. Graham1

1Pacific Northwest National Laboratory, Richland, Washington, USA
2Vanderbilt University, Nashville, Tennessee, USA
3Joint Global Change Research Institute, Pacific Northwest National Laboratory, College Park, Maryland, USA
4Sandia National Laboratories, Albuquerque, New Mexico, USA

Contents of this file

1. Table 1

2. Figure S1

Table 1. Vertical and lateral residence times at selected reaches along the Columbia River.

| Reach number | Vertical RT (h) | Lateral RT (h) |
|--------------|----------------|----------------|
| 27           | 8.98           | 1380           |
| 28           | 8.98           | 1380           |
| 20           | 8.98           | 1380           |
| 24           | 8.99           | 1380           |
| 43           | 143            | 46100          |
| 53           | 143            | 46100          |
| 67           | 143            | 46100          |
| 77           | 8.49           | 408            |
| 88           | 7.88           | 408            |
| 93           | 112            | 22100          |
| 100          | 258            | 93800          |
| 101          | 267            | 93800          |
Figure 1. Relationship between observed DOC and stream flow discharge.

\[ y = 0.8693e^{0.0001x} \]
\[ R^2 = 0.2744 \]