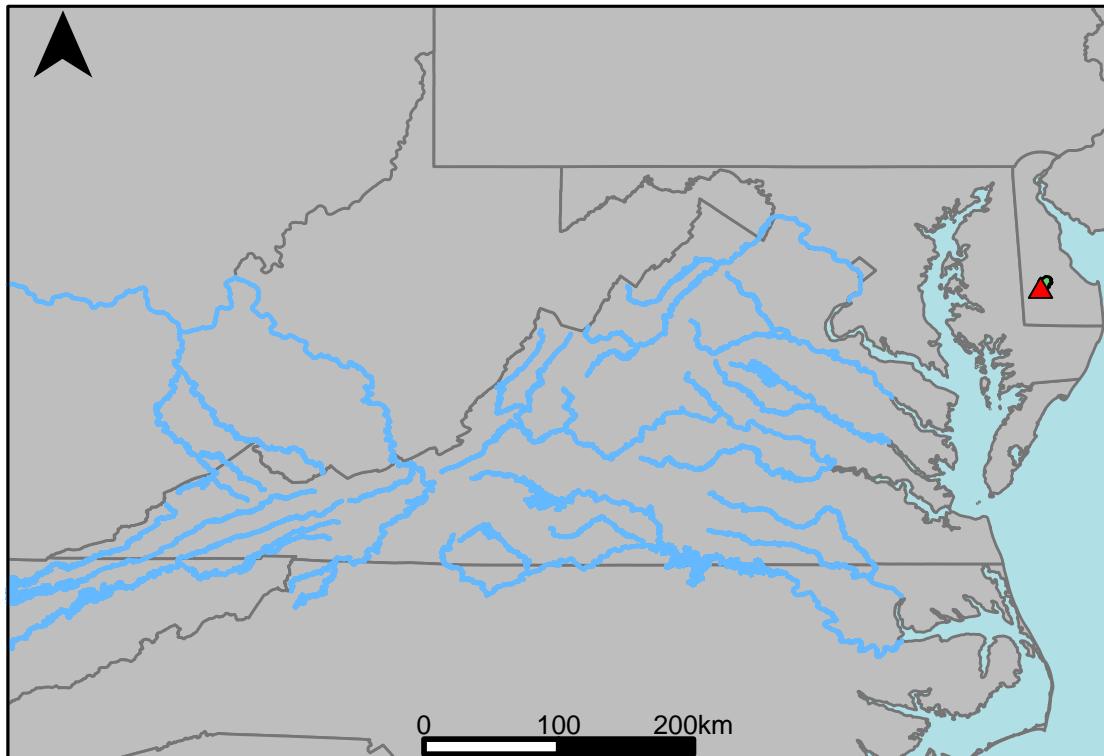


Appendix ##: River Segment: EL0_4561_4562 -
Scenario 1: CFBASE30Y20180615 vs. Scenario 2:
CBASE1808L55CY55R45P50R45P50Y



This river segment follows part of the flow of the Nanticoke River near Bridgeville, DE. Gage 01487000 is located in Sussex County, VA (Lat 38° 43'42", Long 75° 33'42.7") approximately 2.5 miles southeast of Bridgeville, DE. Drainage area is 75.4 sq. miles. This gage started taking data in 1943 and is still taking data currently. There are no significant anthropogenic alterations in this area that would affect the flow conditions. The average daily discharge change between scenario 1 and scenario 2 for the 20 year timespan was 6.49038%, with 4.44% of its rolling three month time spans above 20% difference.

Table 1: Monthly Low Flows

| | Base 2018 | Climate Change | Pct. Difference |
|---------------|-----------|----------------|-----------------|
| Jan. Low Flow | 9.07 | 9.16 | 0.99 |
| Feb. Low Flow | 18 | 18.1 | 0.56 |
| Mar. Low Flow | 24.7 | 25 | 1.21 |
| Apr. Low Flow | 28.4 | 29 | 2.11 |
| May Low Flow | 38.7 | 38.3 | -1.03 |
| Jun. Low Flow | 38.2 | 38.6 | 1.05 |
| Jul. Low Flow | 38.4 | 37.8 | -1.56 |
| Aug. Low Flow | 30.4 | 30.6 | 0.66 |
| Sep. Low Flow | 17.6 | 17.4 | -1.14 |
| Oct. Low Flow | 7.88 | 7.24 | -8.12 |
| Nov. Low Flow | 9.09 | 9.01 | -0.88 |
| Dec. Low Flow | 9.3 | 9.69 | 4.19 |

Table 2: Monthly Average Flows

| | Base 2018 | Climate Change | Pct. Difference |
|-------------------|-----------|----------------|-----------------|
| Overall Mean Flow | 41.6 | 44.3 | 6.49 |
| Jan. Mean Flow | 57.2 | 62.1 | 8.57 |
| Feb. Mean Flow | 63 | 67.6 | 7.3 |
| Mar. Mean Flow | 74.2 | 76.9 | 3.64 |
| Apr. Mean Flow | 58.8 | 60.1 | 2.21 |
| May Mean Flow | 47 | 49.6 | 5.53 |
| Jun. Mean Flow | 29.5 | 29.9 | 1.36 |
| Jul. Mean Flow | 21.7 | 22.9 | 5.53 |
| Aug. Mean Flow | 25.9 | 28.7 | 10.81 |
| Sep. Mean Flow | 26.6 | 28.2 | 6.02 |
| Oct. Mean Flow | 25.8 | 27.7 | 7.36 |
| Nov. Mean Flow | 29.4 | 32.5 | 10.54 |
| Dec. Mean Flow | 40.9 | 46 | 12.47 |

Table 3: Monthly High Flows

| | Base 2018 | Climate Change | Pct. Difference |
|----------------|-----------|----------------|-----------------|
| Jan. High Flow | 40.2 | 47.8 | 18.9 |
| Feb. High Flow | 50.3 | 64.1 | 27.4 |
| Mar. High Flow | 59.2 | 70.5 | 19.1 |
| Apr. High Flow | 124 | 150 | 21 |
| May High Flow | 86.2 | 110 | 27.6 |
| Jun. High Flow | 163 | 184 | 12.9 |
| Jul. High Flow | 95 | 107 | 12.6 |
| Aug. High Flow | 91.4 | 118 | 29.1 |
| Sep. High Flow | 40.4 | 46.8 | 15.8 |
| Oct. High Flow | 27.8 | 35 | 25.9 |
| Nov. High Flow | 45.5 | 57.2 | 25.7 |
| Dec. High Flow | 35.1 | 49 | 39.6 |

Table 4: Period Low Flows

| | Base 2018 | Climate Change | Pct. Difference |
|--------------------------|-----------|----------------|-----------------|
| Min. 1 Day Min | 1.17 | 0.99 | -15.04 |
| Med. 1 Day Min | 4.8 | 4.76 | -0.83 |
| Min. 3 Day Min | 1.25 | 1.07 | -14.4 |
| Med. 3 Day Min | 5 | 5.01 | 0.2 |
| Min. 7 Day Min | 1.44 | 1.24 | -13.89 |
| Med. 7 Day Min | 5.43 | 5.56 | 2.39 |
| Min. 30 Day Min | 2.35 | 2.58 | 9.79 |
| Med. 30 Day Min | 8.41 | 8.8 | 4.64 |
| Min. 90 Day Min | 5.32 | 5.61 | 5.45 |
| Med. 90 Day Min | 12.5 | 13.8 | 10.4 |
| 7Q10 | 2 | 2.01 | 0.5 |
| Year of 90-Day Min. Flow | 1987 | 1987 | 0 |
| Drought Year Mean | 37.9 | 39.1 | 3.17 |
| Mean Baseflow | 29.6 | 29.6 | 0 |

Table 5: Period High Flows

| | Base 2018 | Climate Change | Pct. Difference |
|-----------------|-----------|----------------|-----------------|
| Max. 1 Day Max | 912 | 1080 | 18.42 |
| Med. 1 Day Max | 296 | 368 | 24.32 |
| Max. 3 Day Max | 556 | 647 | 16.37 |
| Med. 3 Day Max | 213 | 245 | 15.02 |
| Max. 7 Day Max | 315 | 357 | 13.33 |
| Med. 7 Day Max | 163 | 169 | 3.68 |
| Max. 30 Day Max | 207 | 228 | 10.14 |
| Med. 30 Day Max | 95.8 | 99.5 | 3.86 |
| Max. 90 Day Max | 133 | 142 | 6.77 |
| Med. 90 Day Max | 69.6 | 73.6 | 5.75 |

Table 6: Non-Exceedance Flows

| | Base 2018 | Climate Change | Pct. Difference |
|--------------------------|-----------|----------------|-----------------|
| 1% Non-Exceedance | 2.61 | 2.82 | 8.05 |
| 5% Non-Exceedance | 5.29 | 5.4 | 2.08 |
| 50% Non-Exceedance | 34 | 35.3 | 3.82 |
| 95% Non-Exceedance | 100 | 109 | 9 |
| 99% Non-Exceedance | 190 | 210 | 10.53 |
| Sept. 10% Non-Exceedance | 3.69 | 3.92 | 6.23 |

Fig. 1: Hydrograph

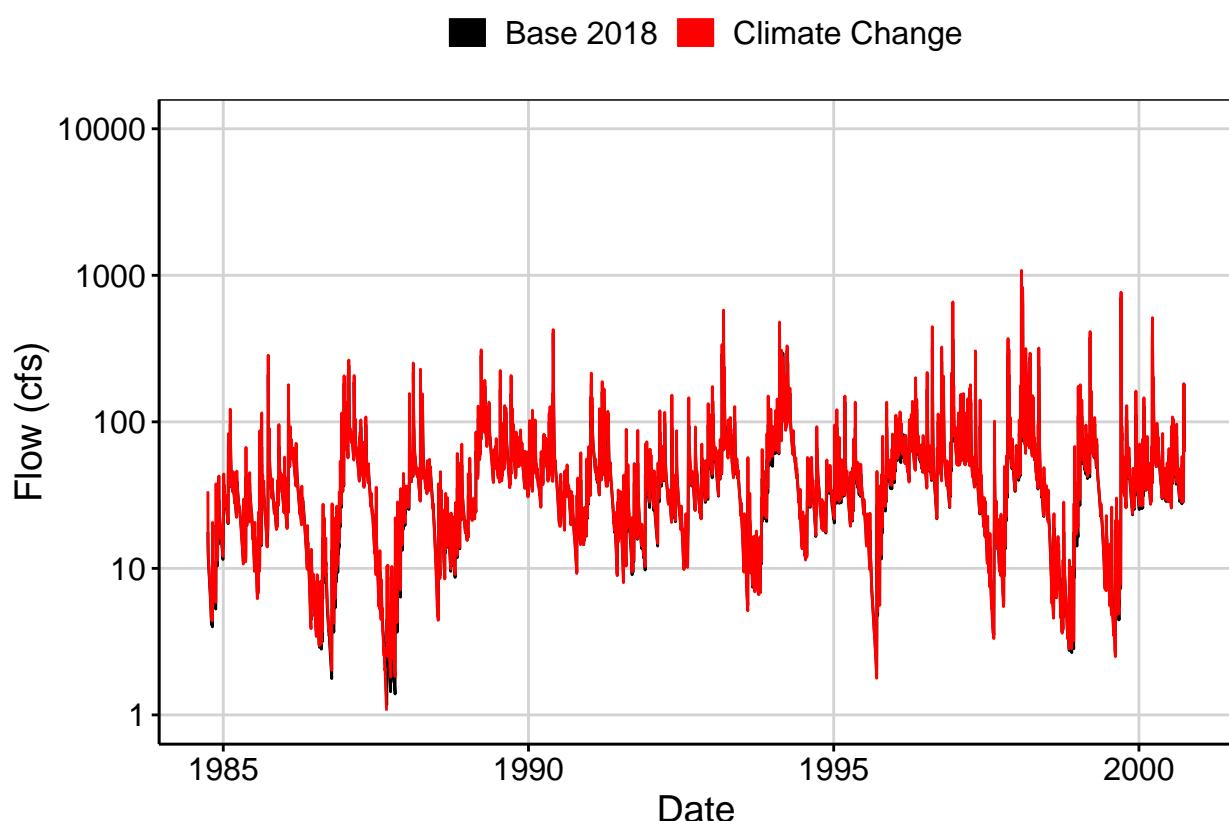


Fig. 2: Zoomed Hydrograph

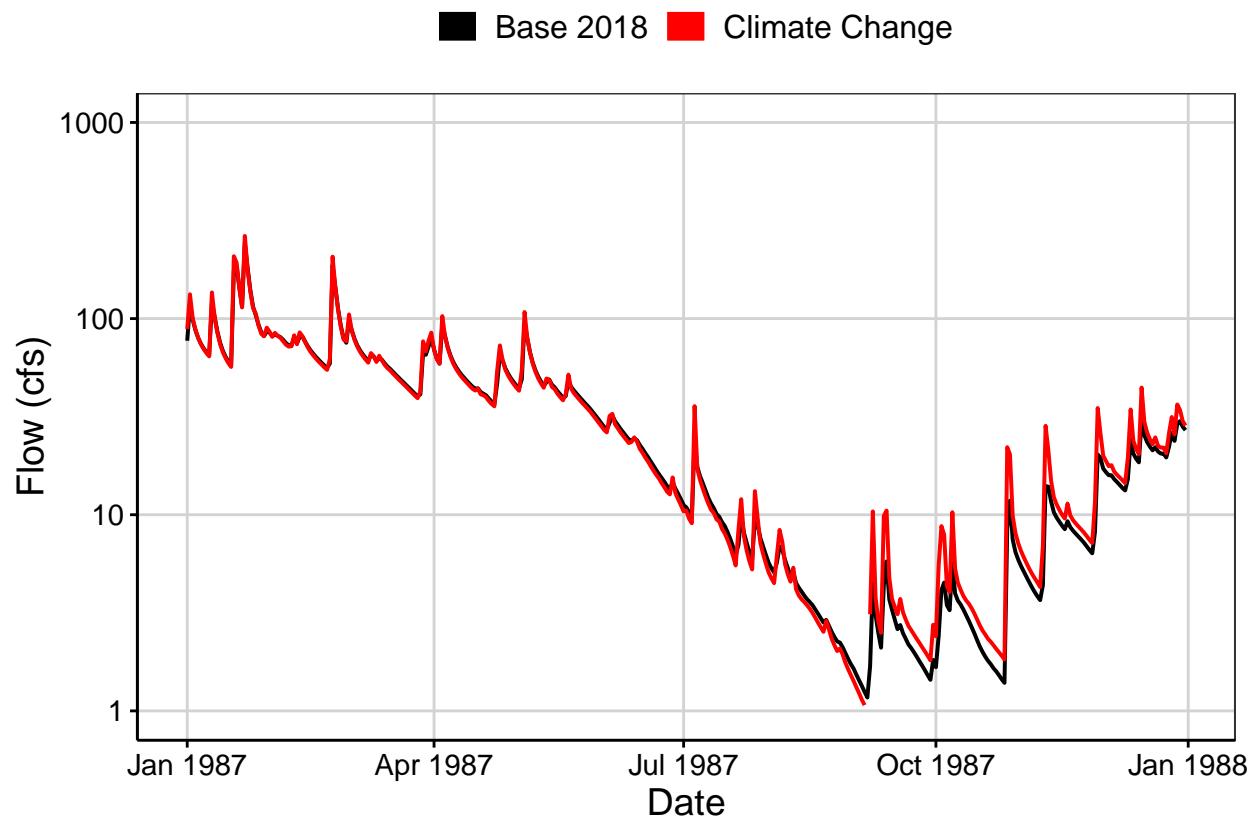


Fig. 3: Flow Exceedance

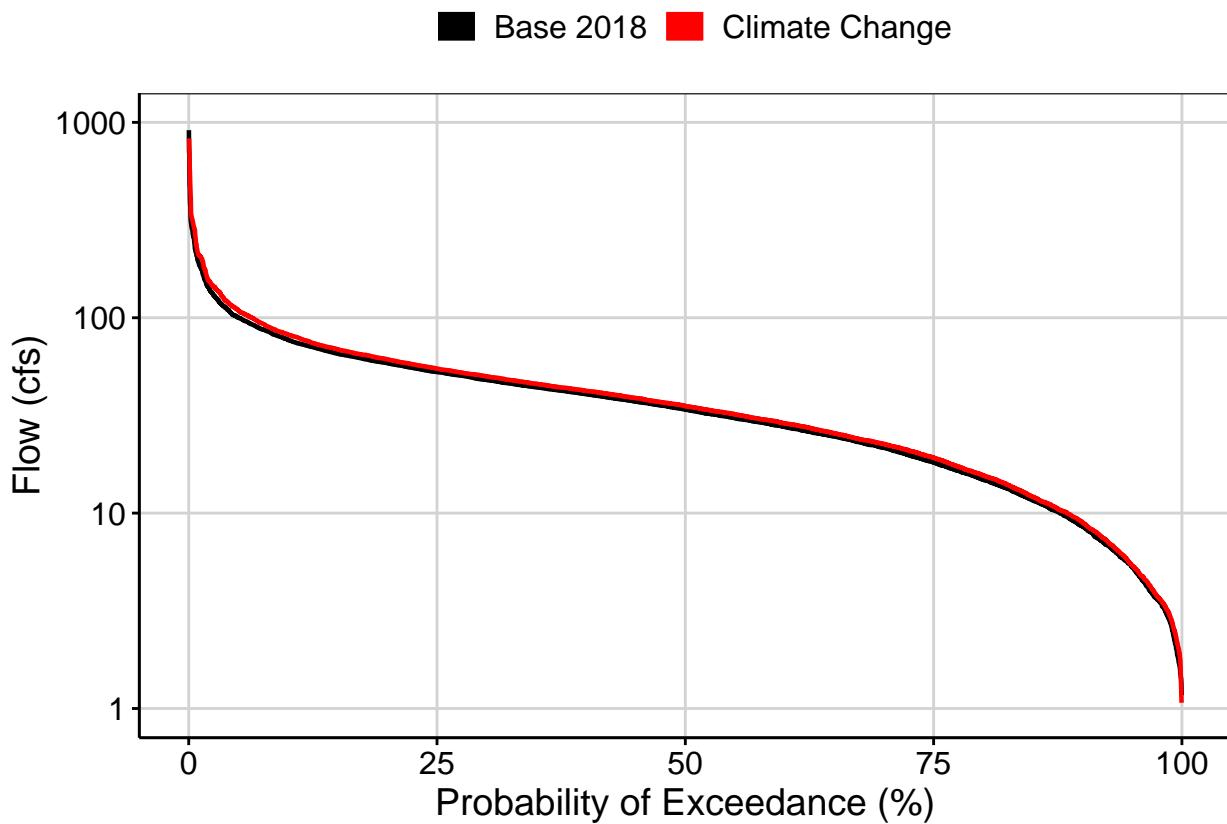


Fig. 4: Baseflow

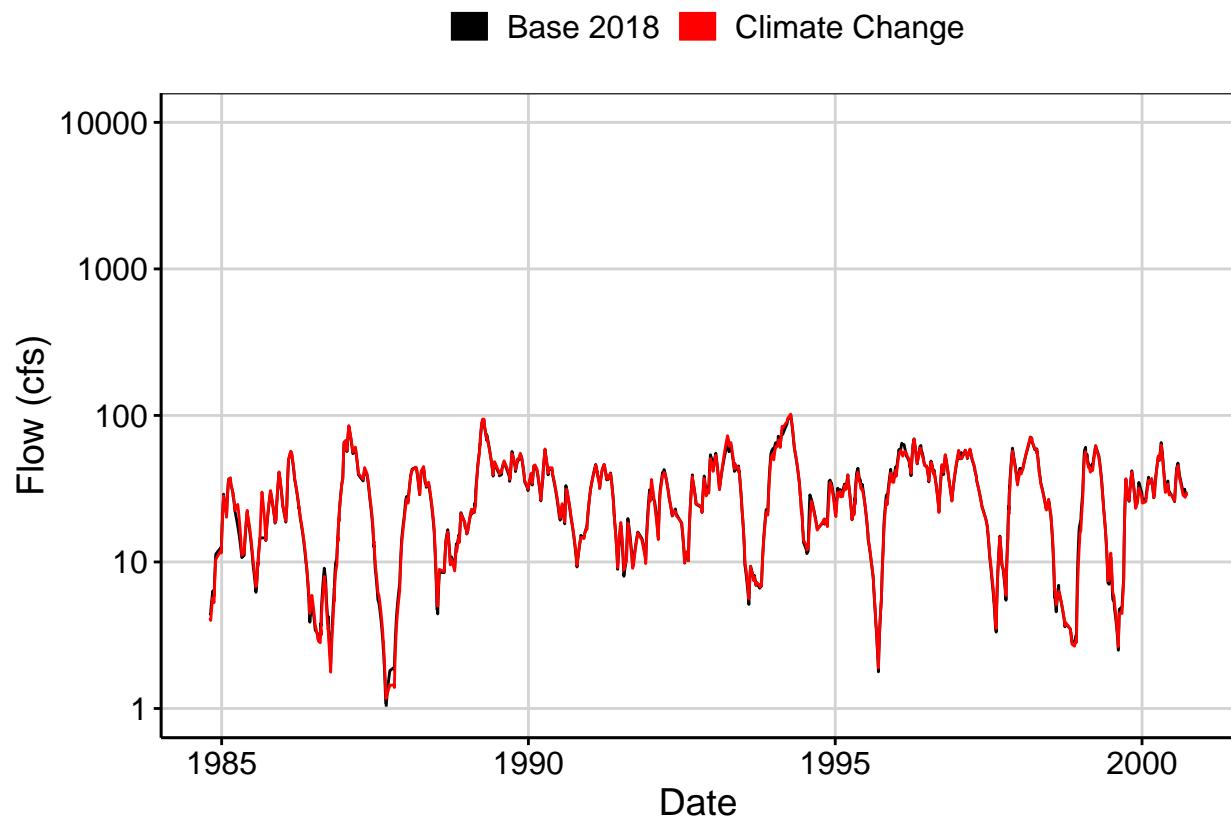


Fig. 5: Combined Baseflow

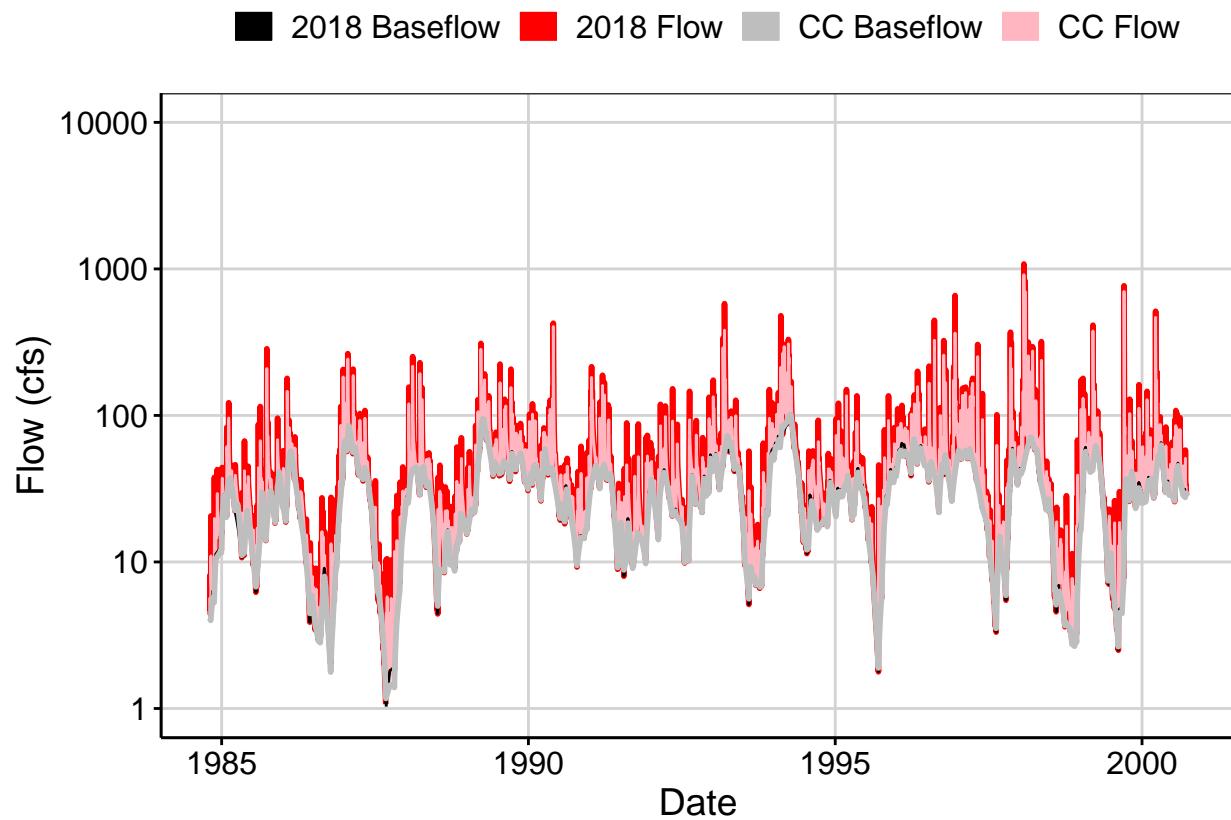


Fig. 6: Largest Difference Segment

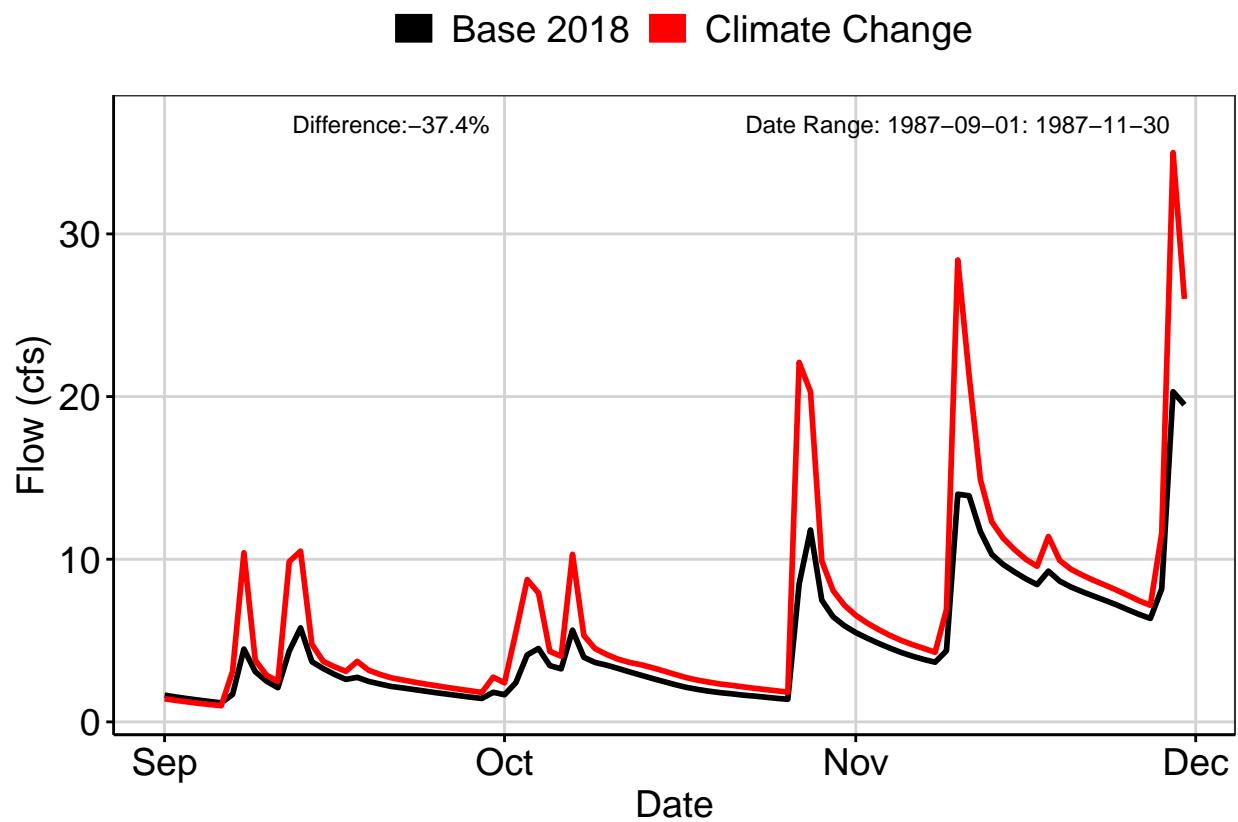


Fig. 7: Second Largest Difference Segment

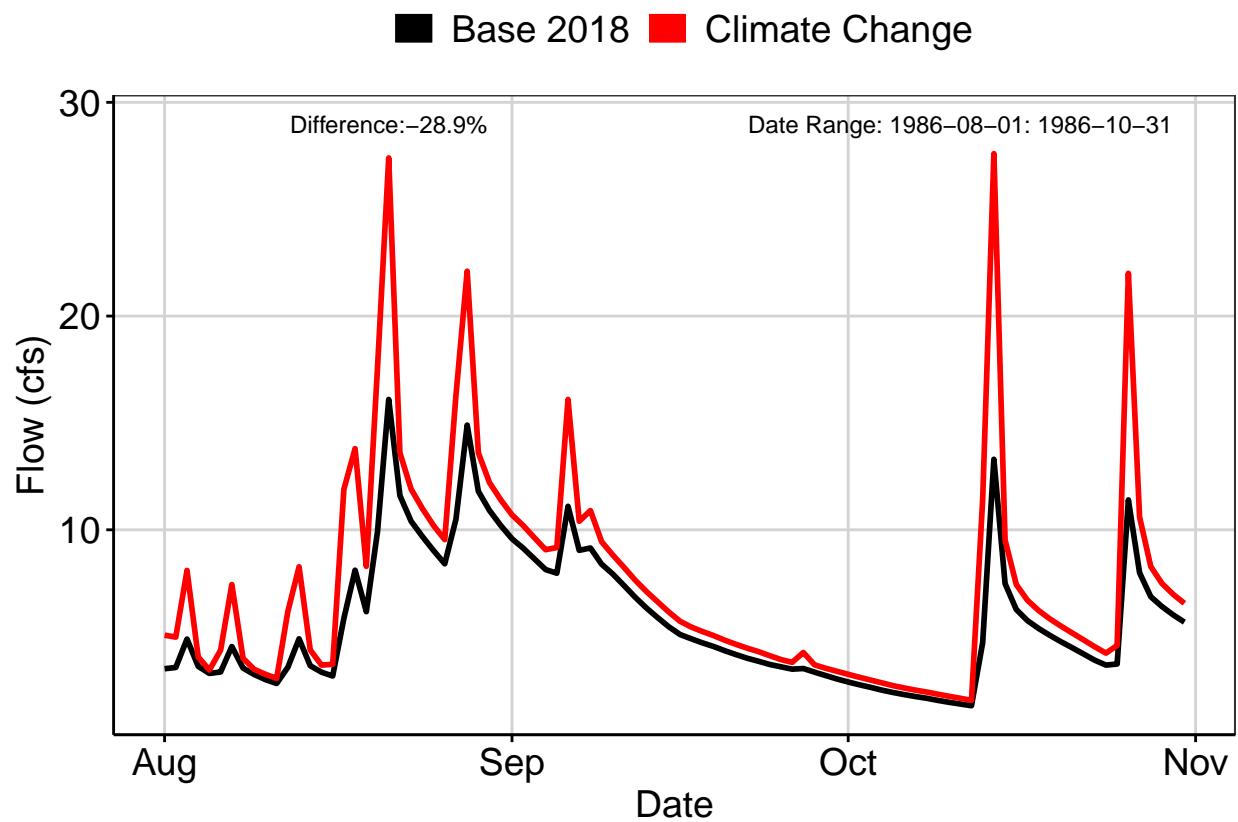


Fig. 8: Third Largest Difference Segment

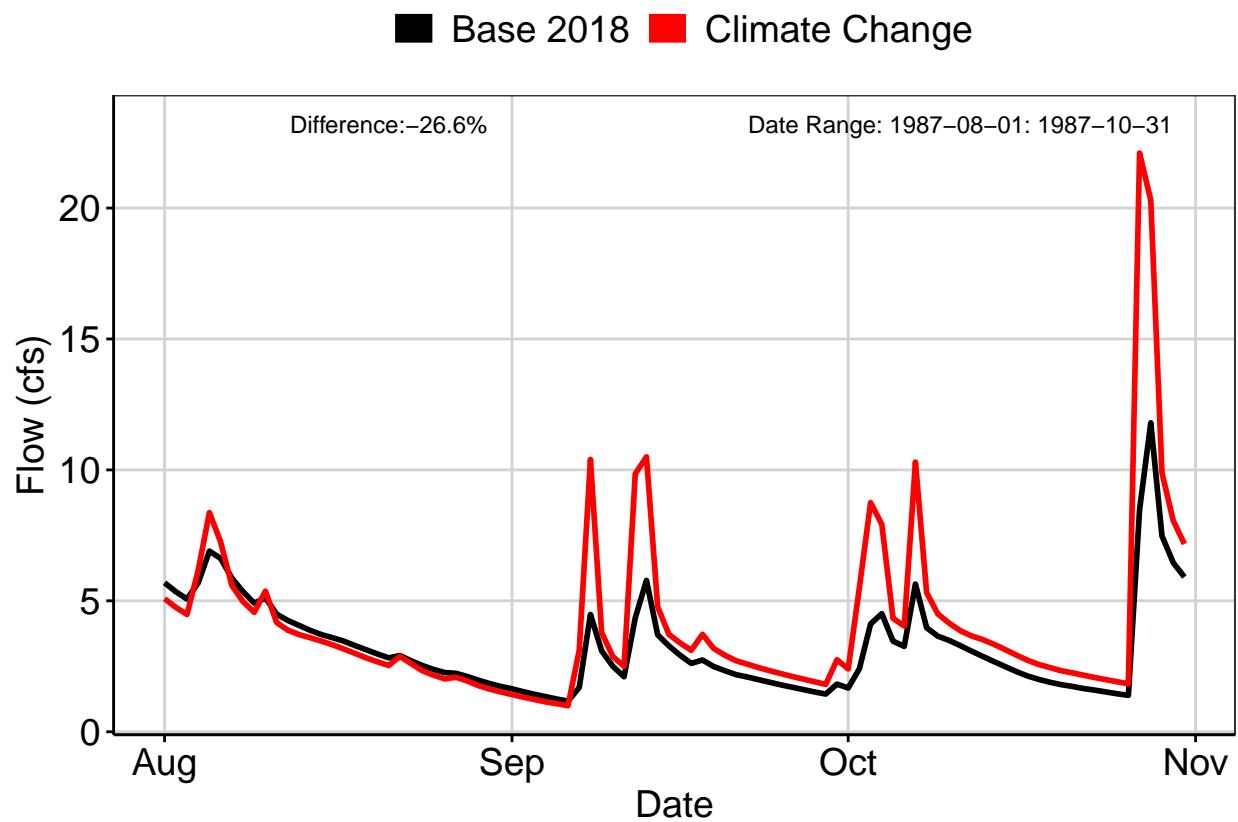


Fig. 9A: Residuals Plot

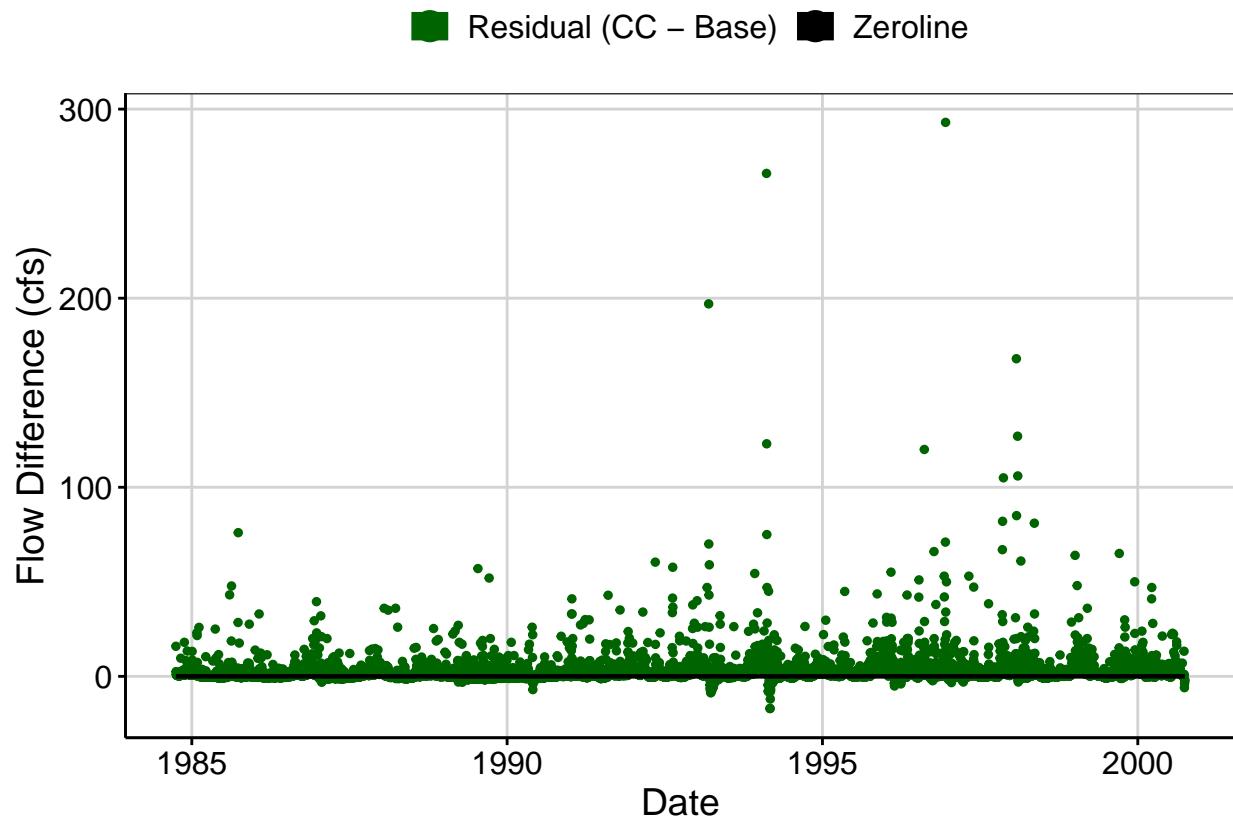


Fig. 9B: Area Weighted Residuals Plot

