
APPENDIX L – COMPARISON OF HSPF AND MODFLOW SIMULATED CUMULATIVE BASEFLOW OF MAJOR RIVER BASINS

Appendix L includes comparisons between HSPF and MODFLOW simulated cumulative baseflows within 11 of the HUC8 basins covering the CSM domain (the remaining two HUC8 basins are not included as only a small portion of these basins is located in the model domain). The hydrological system is simulated using HSPF models for surface water and MODFLOW for groundwater. The monthly time-series of HSPF-calculated baseflow (AGWO) was compared to the cumulative baseflow calculated in the DRN and RIV packages of MODFLOW during the transient model simulation period (2005 through 2018).

Note: The following definitions apply to all figures included in this appendix.

in/yr = inches/year

HSPF AGWO = baseflow time series calculated in the Hydrological Simulation Program – FORTRAN (HSPF) models

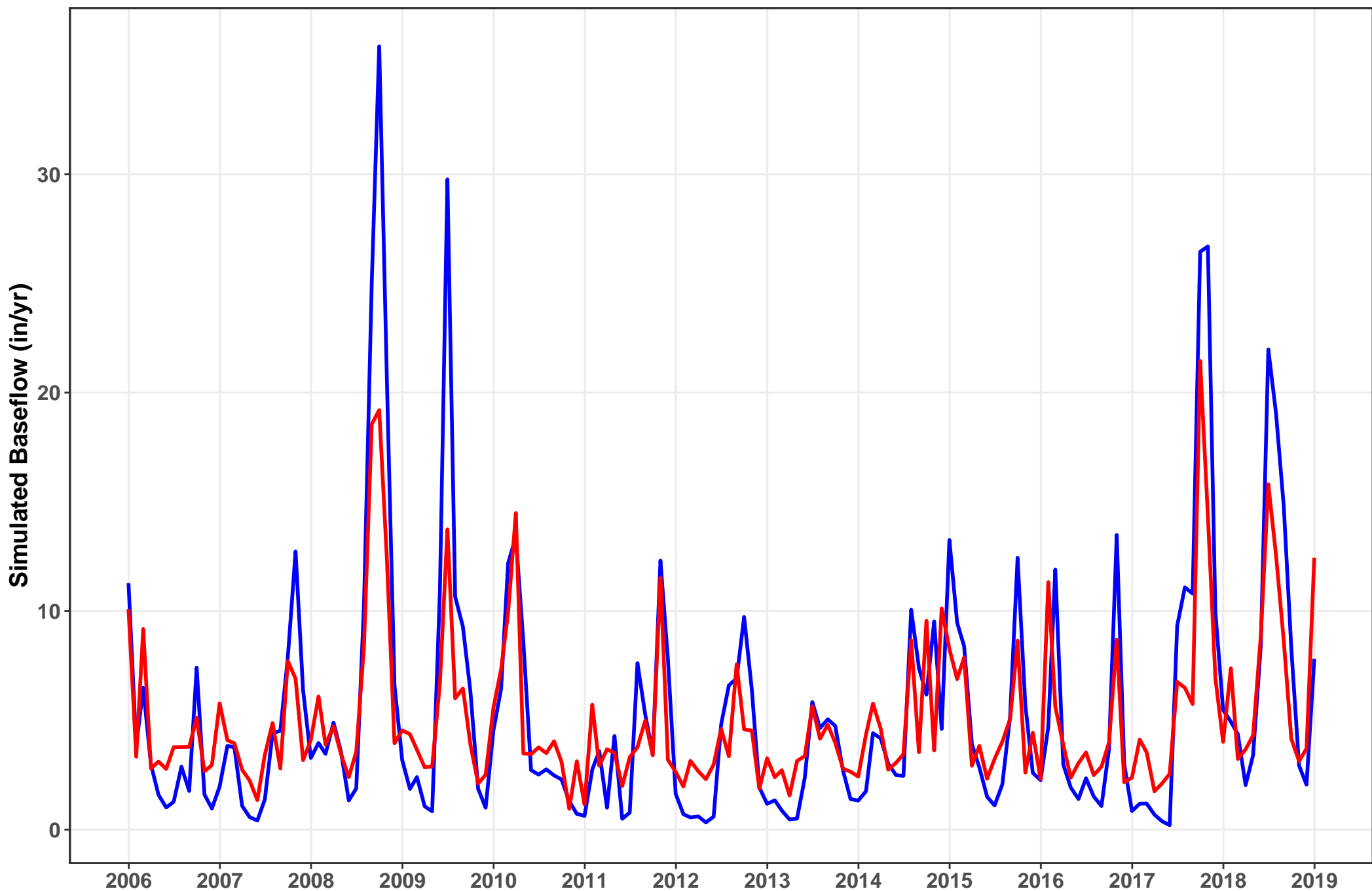
MODFLOW RIV&DRN = cumulative baseflow calculated in the DRN and RIV packages of the MODFLOW groundwater flow simulation software

HUC = Hydrologic Unit Code

HUC 03080101 @ Upper St. Johns

HSPF Mean = 5.44 in/yr MODFLOW Mean = 5.04 in/yr

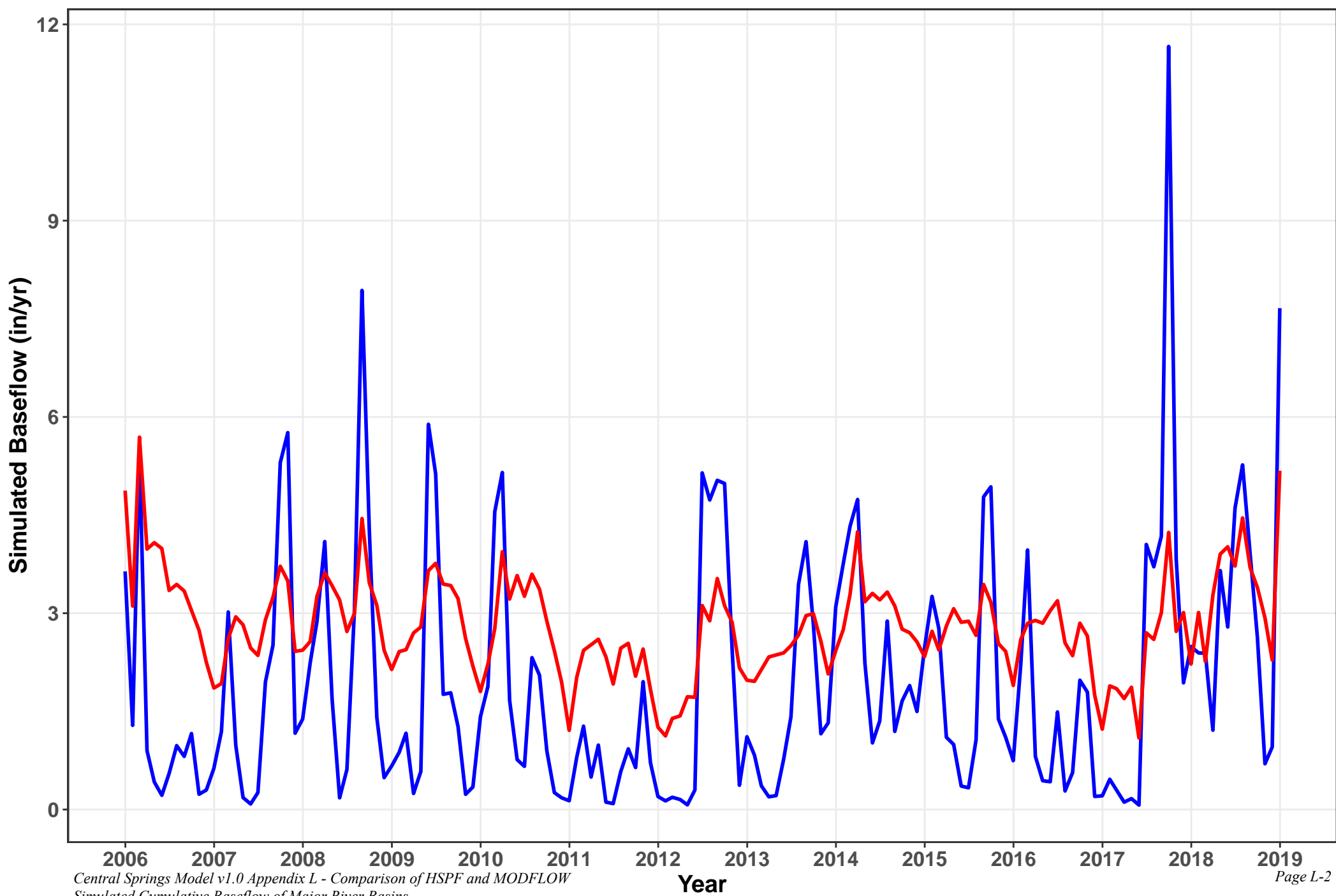
— HSPF AGWO — MODFLOW RIV&DRN



HUC 03080102 @ Ocklawaha

HSPF Mean = 1.92 in/yr MODFLOW Mean = 2.8 in/yr

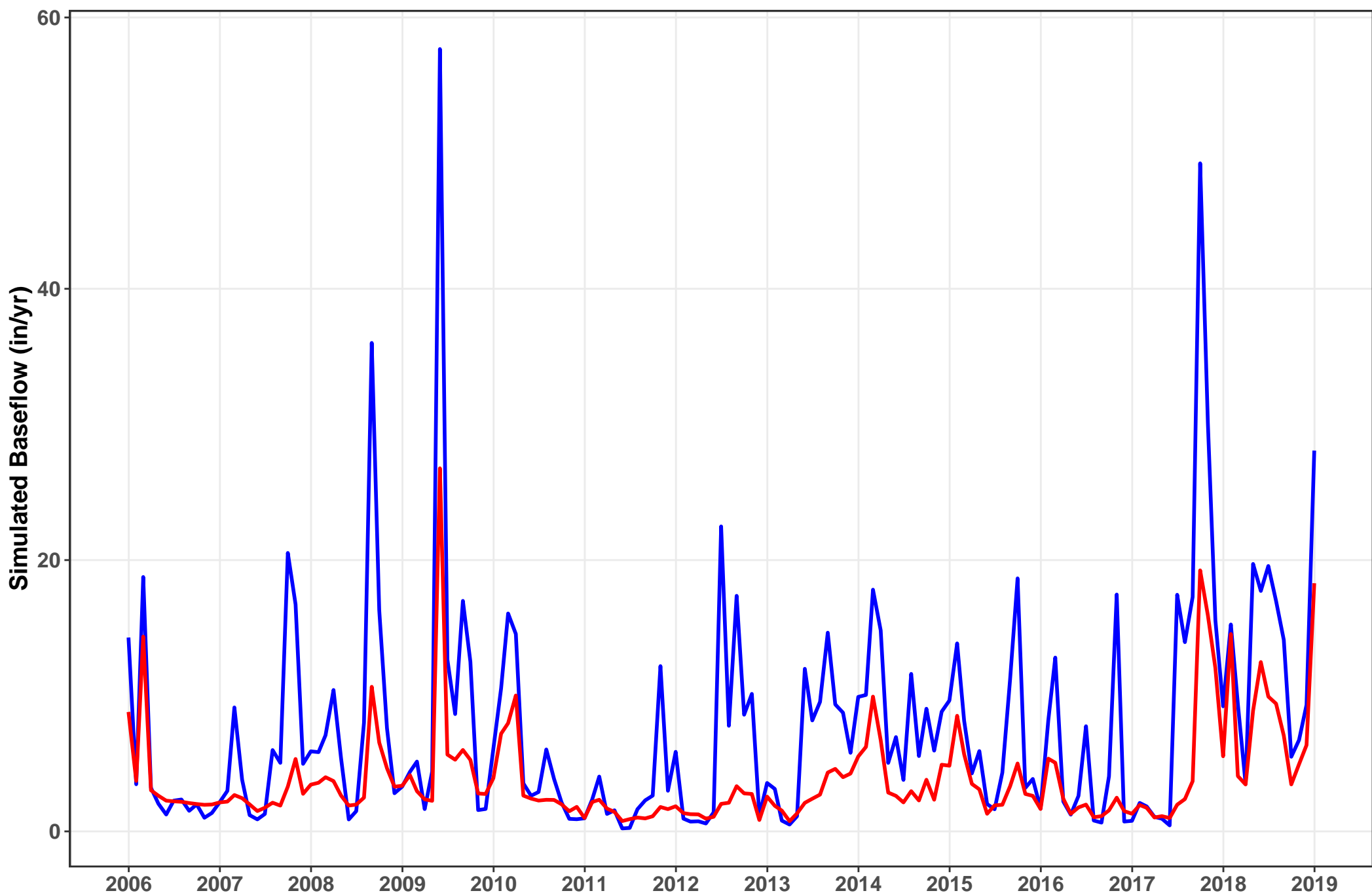
— HSPF AGWO — MODFLOW RIV&DRN



HUC 03080103 @ Lower St. Johns

HSPF Mean = 7.69 in/yr MODFLOW Mean = 3.88 in/yr

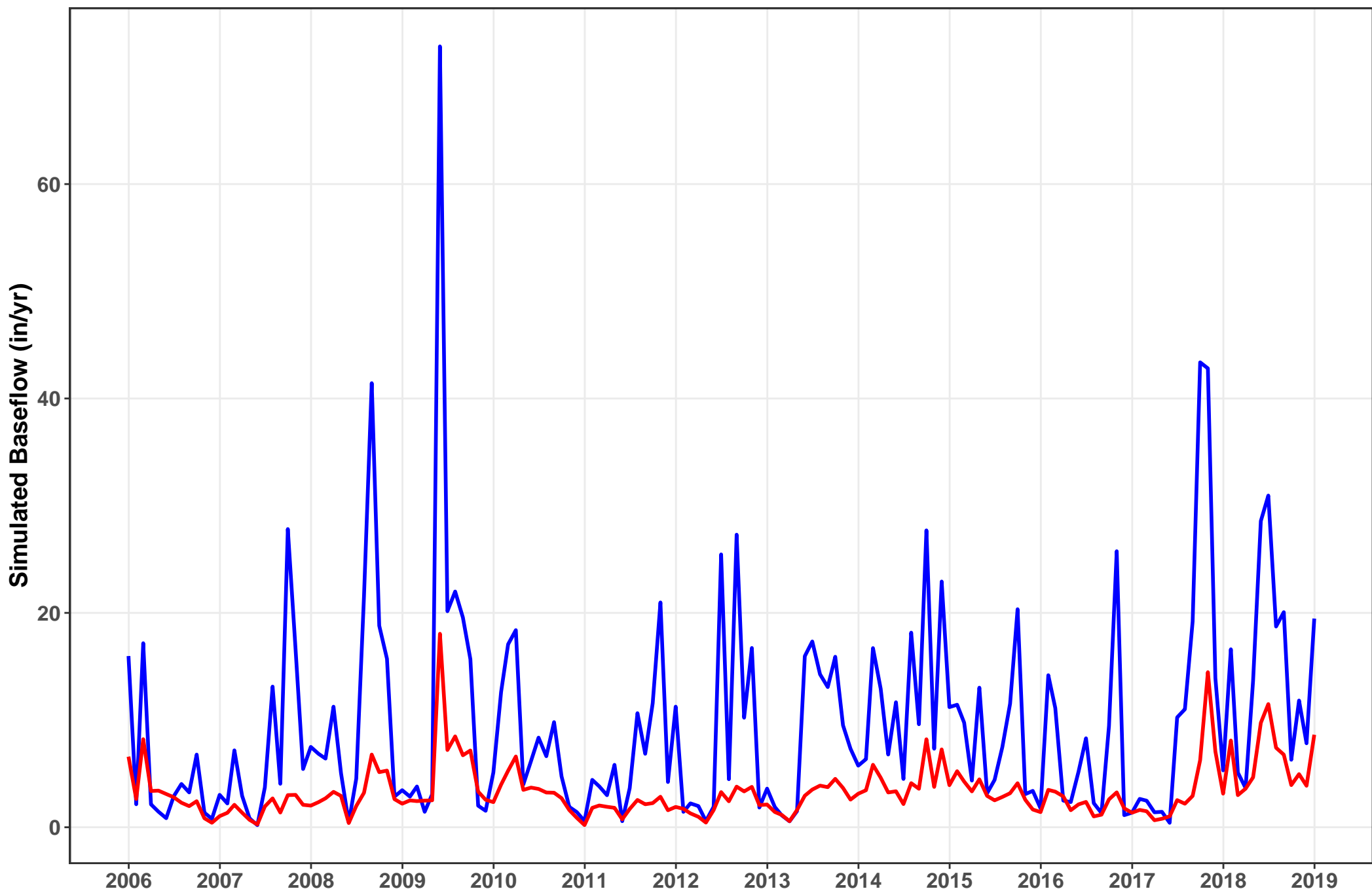
— HSPF AGWO — MODFLOW RIV&DRN



HUC 03080201 @ Daytona-St. Augustine

HSPF Mean = 9.64 in/yr MODFLOW Mean = 3.35 in/yr

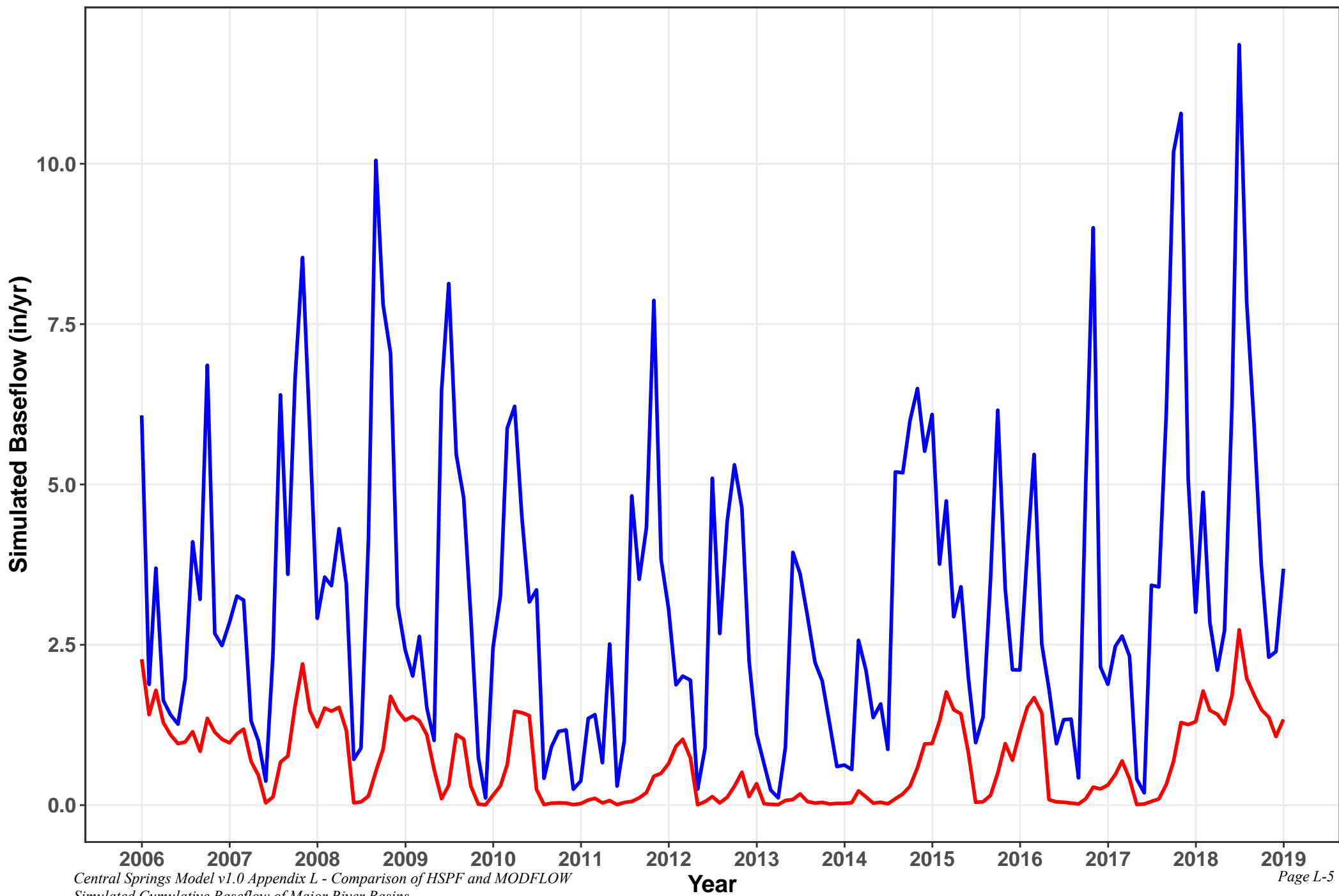
— HSPF AGWO — MODFLOW RIV&DRN



HUC 03080202 @ Cape Canaveral

HSPF Mean = 3.27 in/yr MODFLOW Mean = 0.672 in/yr

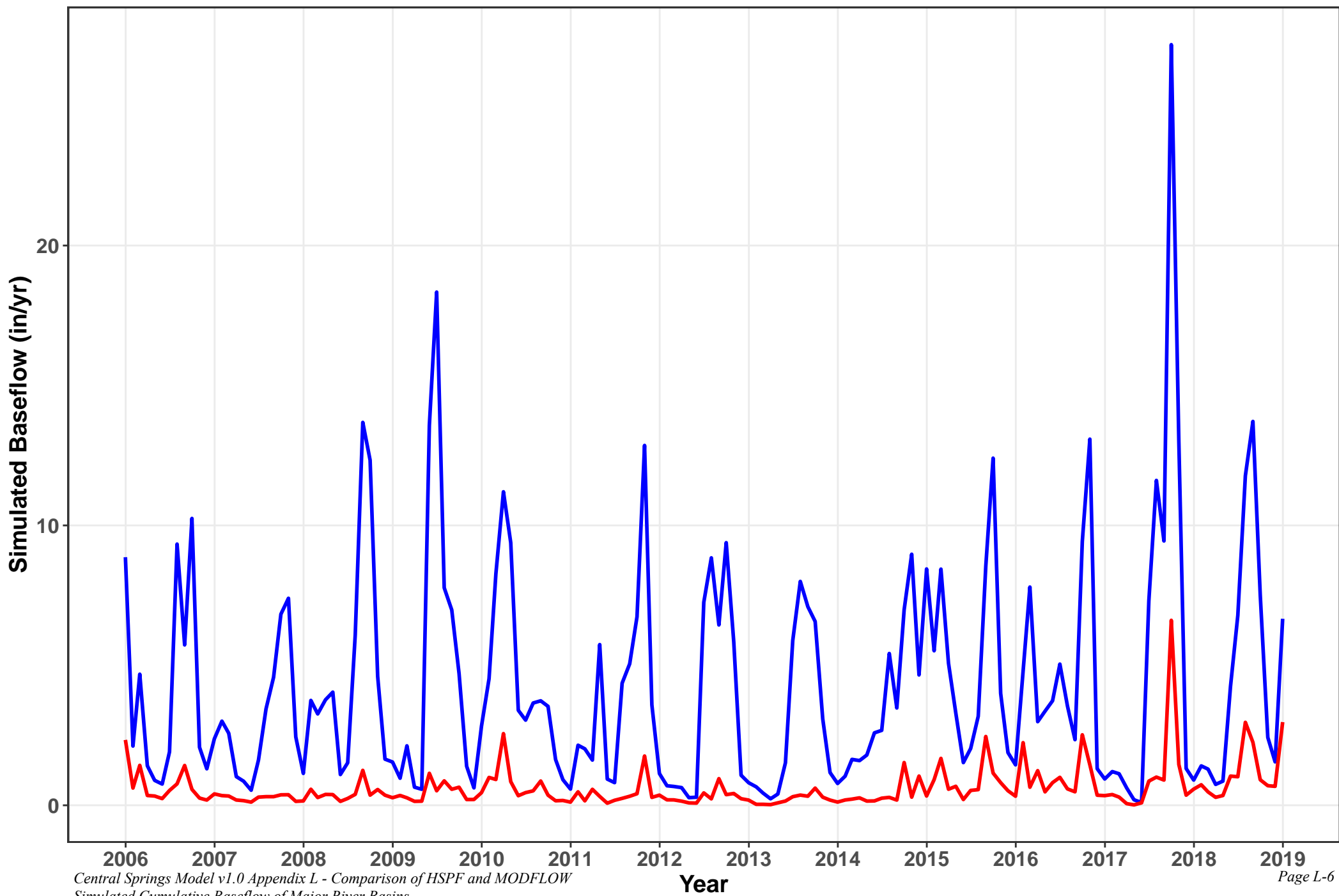
— HSPF AGWO — MODFLOW RIV&DRN



HUC 03090101 @ Kissimmee

HSPF Mean = 4.34 in/yr MODFLOW Mean = 0.62 in/yr

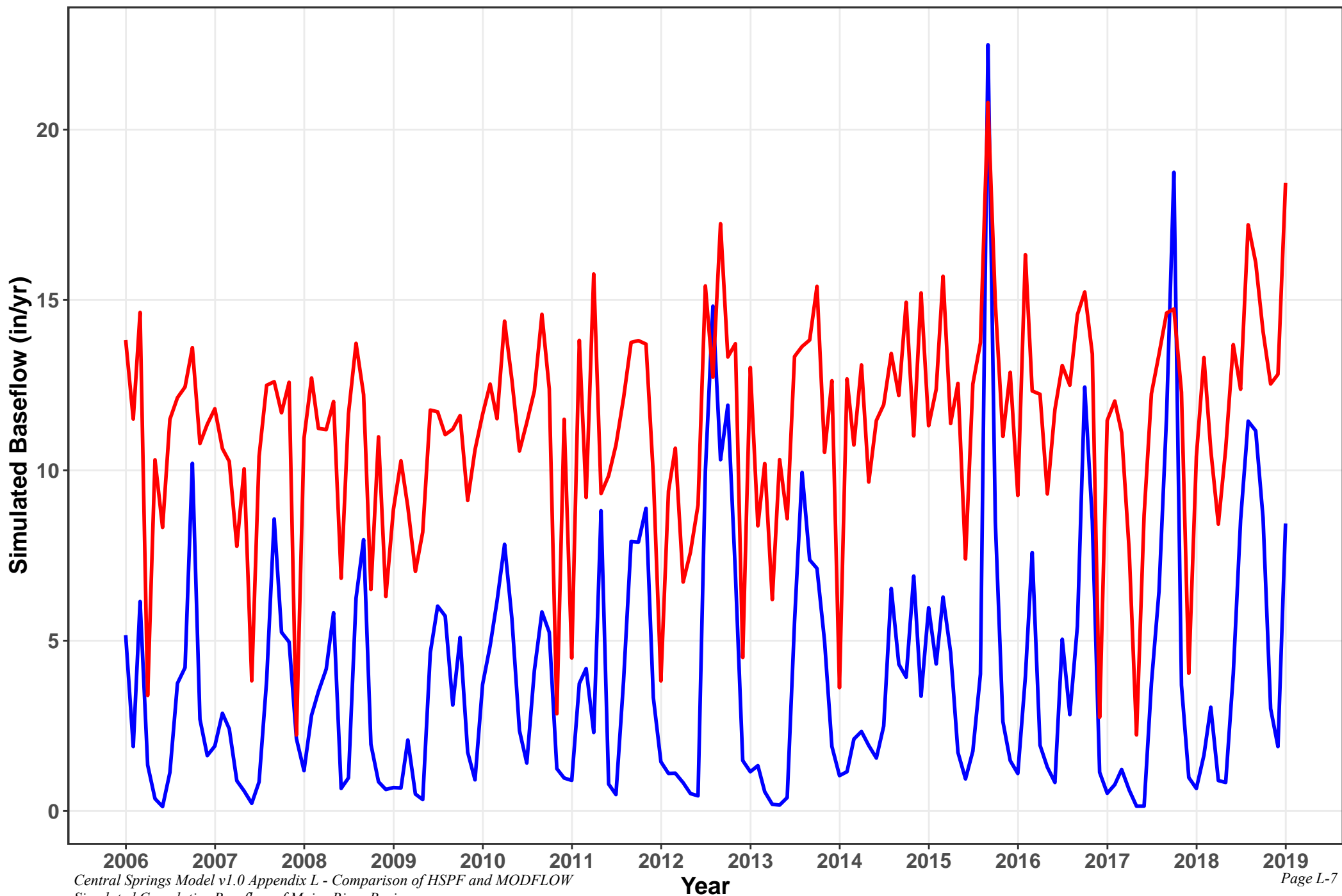
— HSPF AGWO — MODFLOW RIV&DRN



HUC 03100205 @ Hillsborough

HSPF Mean = 3.9 in/yr MODFLOW Mean = 11.2 in/yr

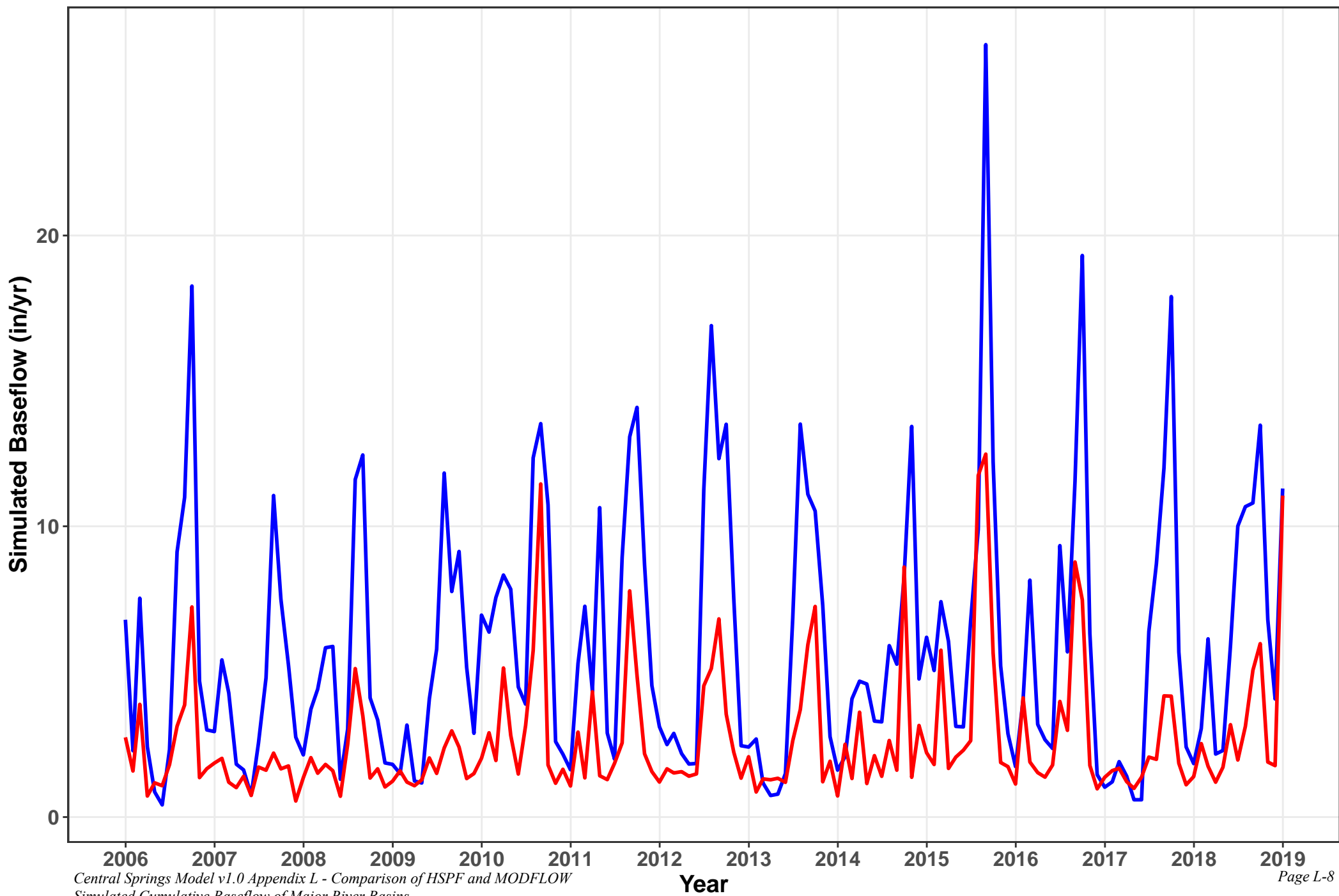
— HSPF AGWO — MODFLOW RIV&DRN



HUC 03100206 @ Tampa Bay

HSPF Mean = 5.88 in/yr MODFLOW Mean = 2.65 in/yr

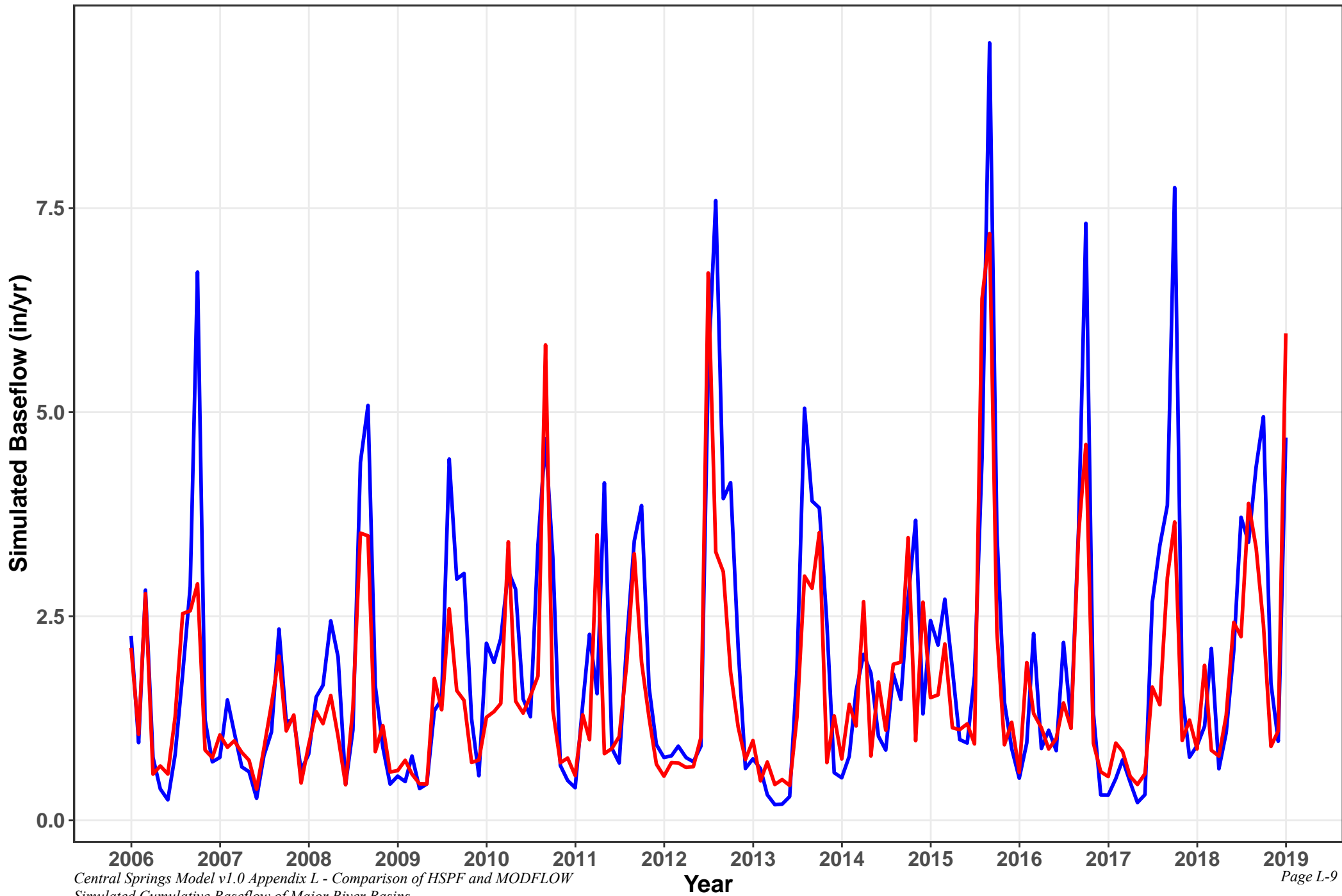
— HSPF AGWO — MODFLOW RIV&DRN



HUC 03100207 @ Crystal-Pithlachascotee

HSPF Mean = 1.93 in/yr MODFLOW Mean = 1.59 in/yr

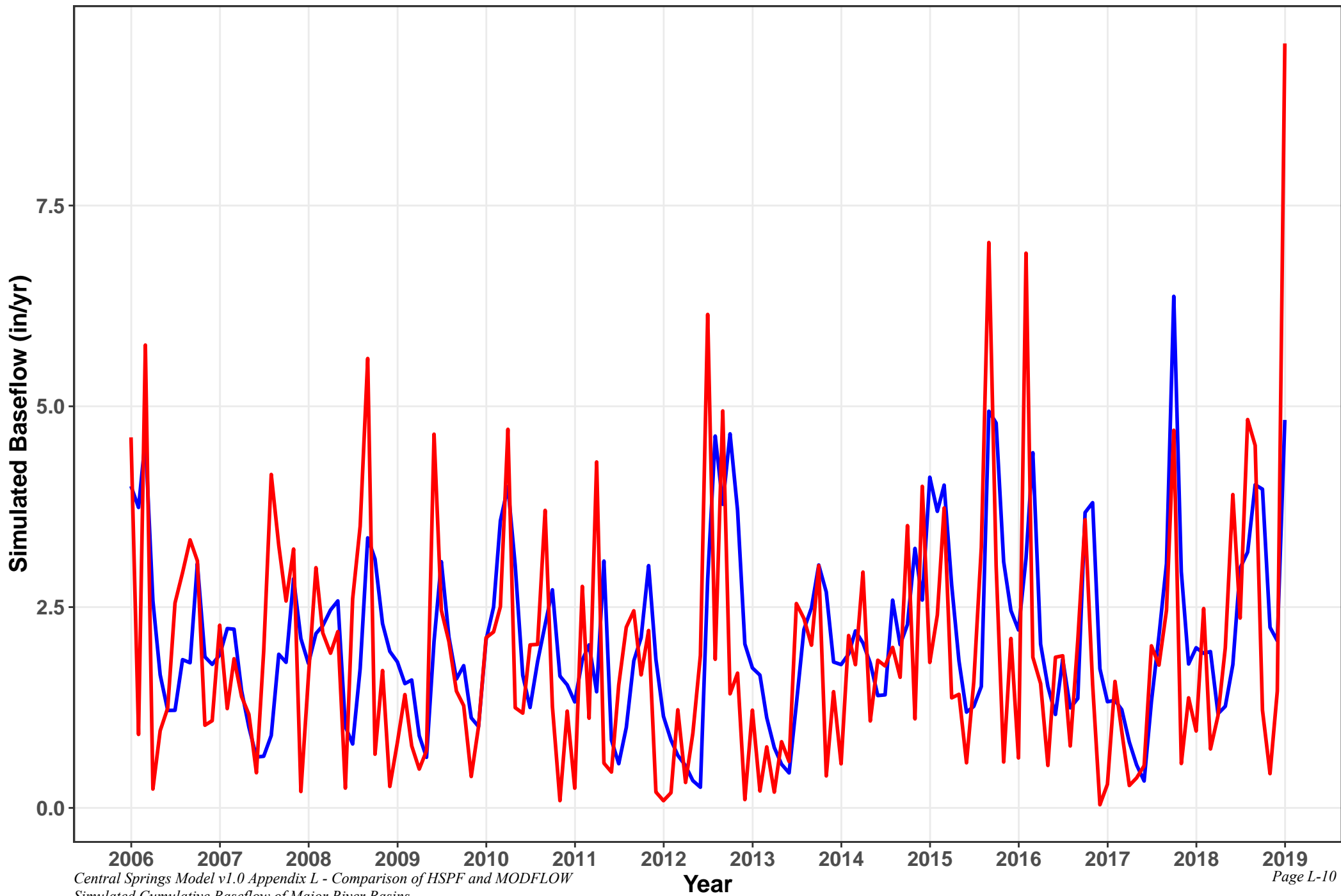
— HSPF AGWO — MODFLOW RIV&DRN



HUC 03100208 @ Withlacoochee

HSPF Mean = 2.13 in/yr MODFLOW Mean = 1.93 in/yr

— HSPF AGWO — MODFLOW RIV&DRN



HUC 03110101 @ Waccasassa

HSPF Mean = 8.92 in/yr MODFLOW Mean = 4.03 in/yr

— HSPF AGWO — MODFLOW RIV&DRN

