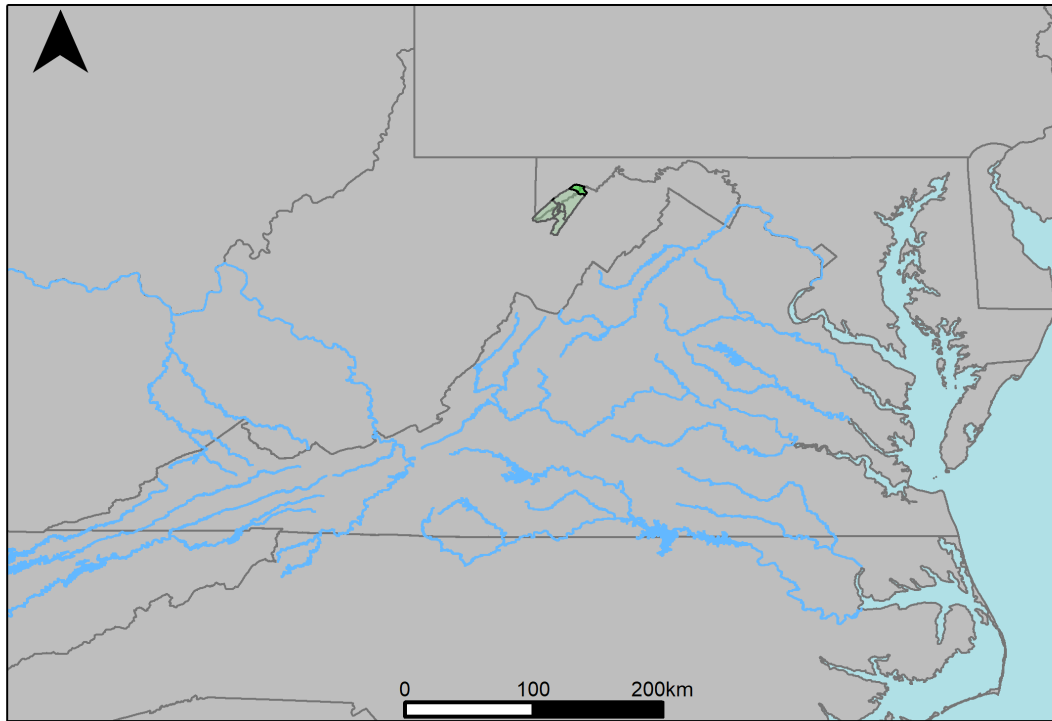


River Segment: PU3_4450_4440 - VaHydro Run 120
(Base) vs. VAHydro Run 121 (CC)



The average daily discharge change between scenario 1 and scenario 2 for the 20 year timespan was 1.0779%, with 8.89% of its rolling three month time spans above 20% difference.

Table 1: Monthly Low Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
Jan. Low Flow	122	104	-15.3
Feb. Low Flow	302	241	-20.1
Mar. Low Flow	311	311	0
Apr. Low Flow	319	249	-21.9
May Low Flow	338	341	0.88
Jun. Low Flow	405	476	17.4
Jul. Low Flow	347	352	1.46
Aug. Low Flow	268	273	2.13
Sep. Low Flow	164	161	-1.6
Oct. Low Flow	150	121	-19.3
Nov. Low Flow	115	75	-35
Dec. Low Flow	143	72.4	-49.2

Table 2: Monthly Average Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
Overall Mean Flow	493	499	1.08
Jan. Mean Flow	576	583	1.32
Feb. Mean Flow	633	641	1.19
Mar. Mean Flow	850	861	1.23
Apr. Mean Flow	704	709	0.71
May Mean Flow	553	559	0.96
Jun. Mean Flow	402	396	-1.64
Jul. Mean Flow	358	341	-4.83
Aug. Mean Flow	306	299	-2.49
Sep. Mean Flow	298	256	-14.3
Oct. Mean Flow	276	287	4.05
Nov. Mean Flow	448	483	7.68
Dec. Mean Flow	522	578	10.6

Table 3: Monthly High Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
Jan. High Flow	304	560	84.1
Feb. High Flow	523	575	9.82
Mar. High Flow	748	926	23.7
Apr. High Flow	1040	1050	0.16
May High Flow	948	1060	11.6
Jun. High Flow	1410	1540	9.18
Jul. High Flow	978	981	0.31
Aug. High Flow	925	930	0.6
Sep. High Flow	685	691	0.98
Oct. High Flow	531	537	1.2
Nov. High Flow	408	475	16.5
Dec. High Flow	307	375	22.3

Table 4: Period Low Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
Min. 1 Day Min	1.15	1.15	-0.01
Med. 1 Day Min	35.3	17.3	-51.1
Min. 3 Day Min	1.3	1.3	-0.01
Med. 3 Day Min	40.6	18.9	-53.4
Min. 7 Day Min	1.76	1.76	-0.01
Med. 7 Day Min	50.3	26.1	-48.1
Min. 30 Day Min	16.8	16.8	-0.01
Med. 30 Day Min	126	76.9	-39.1
Min. 90 Day Min	83.5	45.4	-45.7
Med. 90 Day Min	245	247	0.9
7Q10	10.2	4.69	-54
Year of 90-Day Min. Flow	1990	2000	0.4
Drought Year Mean	466	282	-39.5
Mean Baseflow	336	319	-4.96

Table 5: Period High Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
Max. 1 Day Max	8830	8830	0.03
Med. 1 Day Max	1740	1830	5.14
Max. 3 Day Max	8240	8240	0.04
Med. 3 Day Max	1660	1760	5.67
Max. 7 Day Max	5860	5860	0.06
Med. 7 Day Max	1430	1510	5.35
Max. 30 Day Max	2380	2390	0.15
Med. 30 Day Max	999	1000	0.43
Max. 90 Day Max	1430	1440	0.28
Med. 90 Day Max	725	730	0.74

Table 6: Non-Exceedance Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
1% Non-Exceedance	33.2	15.4	-53.5
5% Non-Exceedance	99.5	51.6	-48.1
50% Non-Exceedance	353	397	12.5
95% Non-Exceedance	1260	1310	3.59
99% Non-Exceedance	1940	1950	0.55
Sept. 10% Non-Exceedance	55	23	-58.2

Fig. 1: Hydrograph

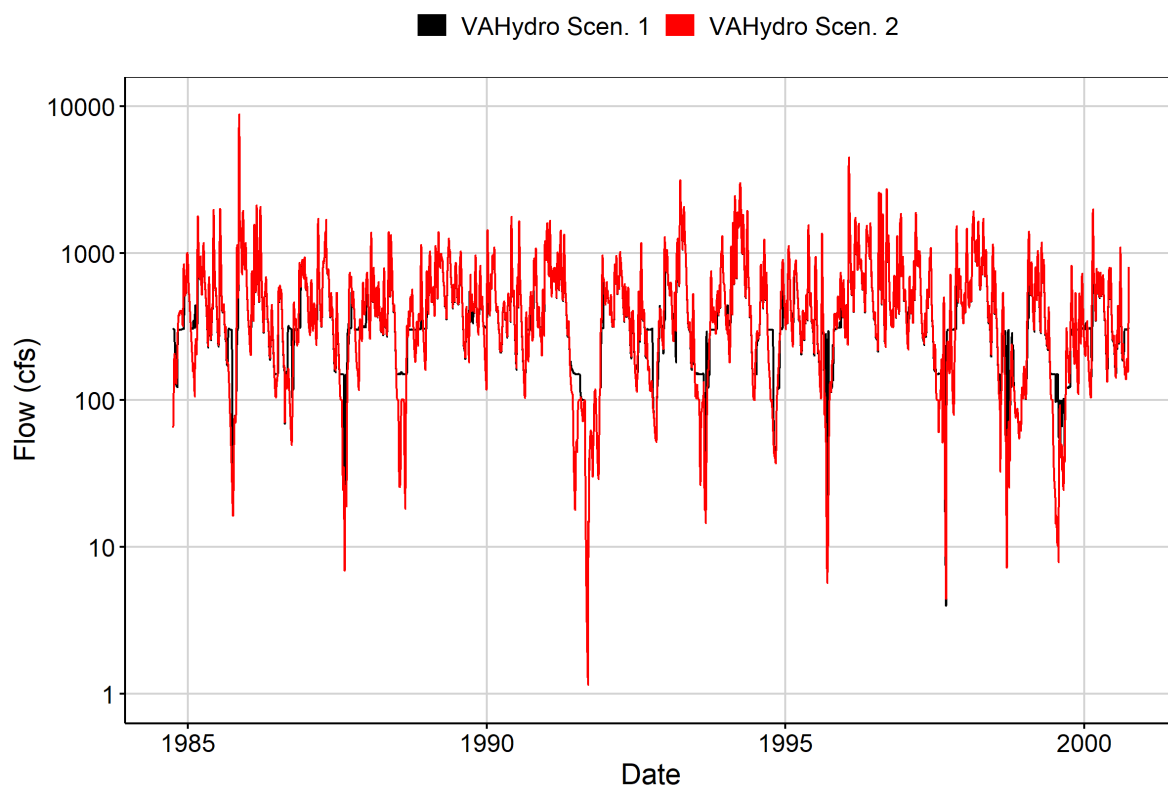


Fig. 2: Zoomed Hydrograph

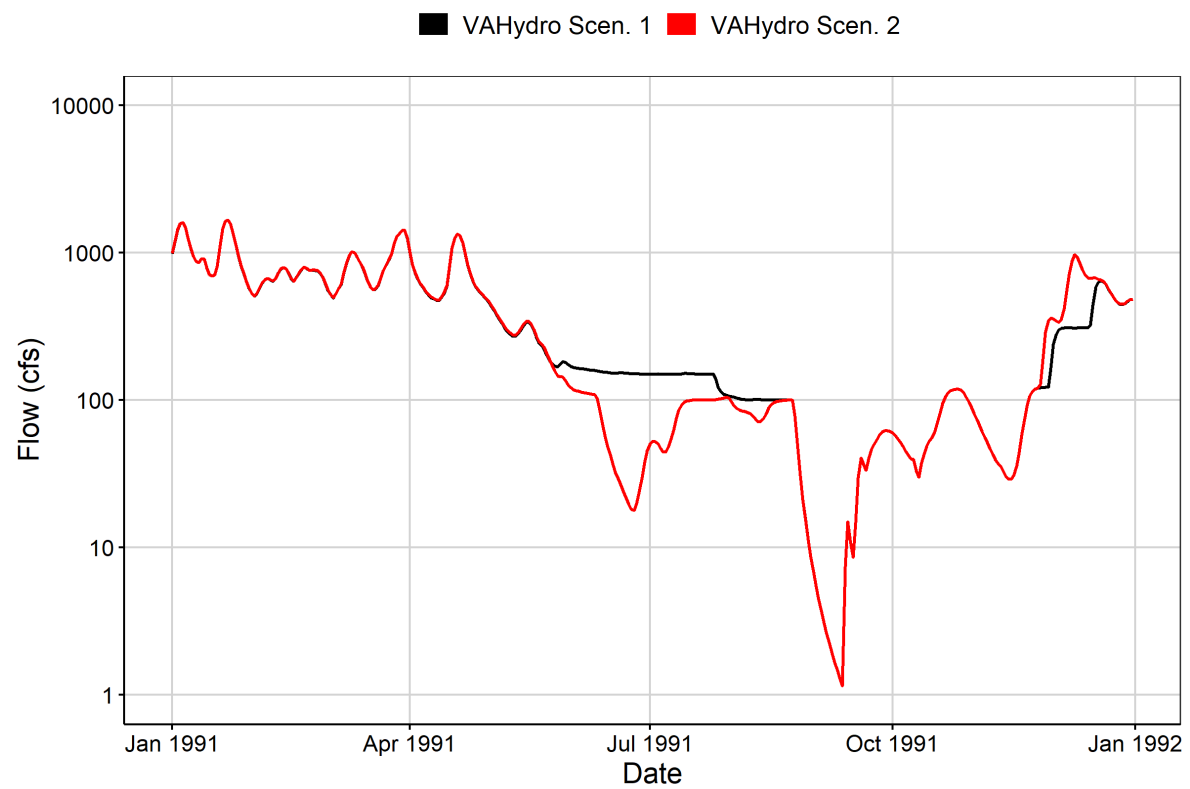


Fig. 3: Flow Exceedance

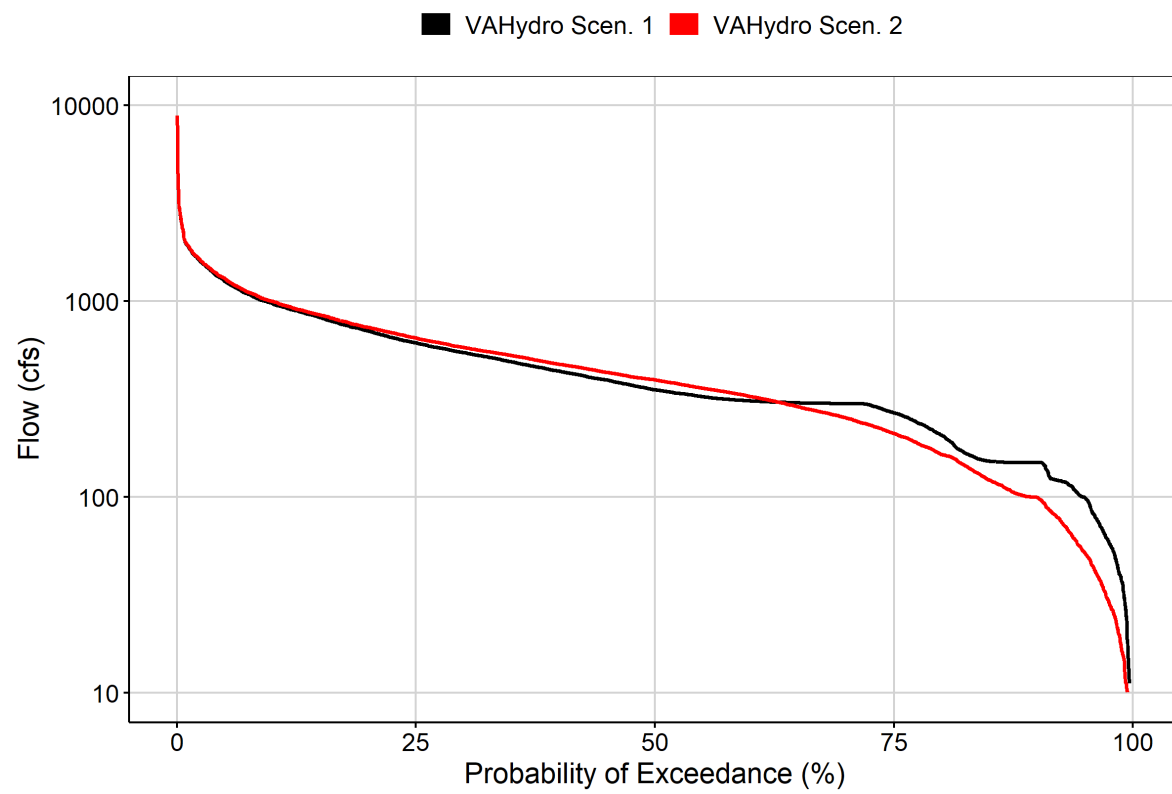


Fig. 4: Baseflow

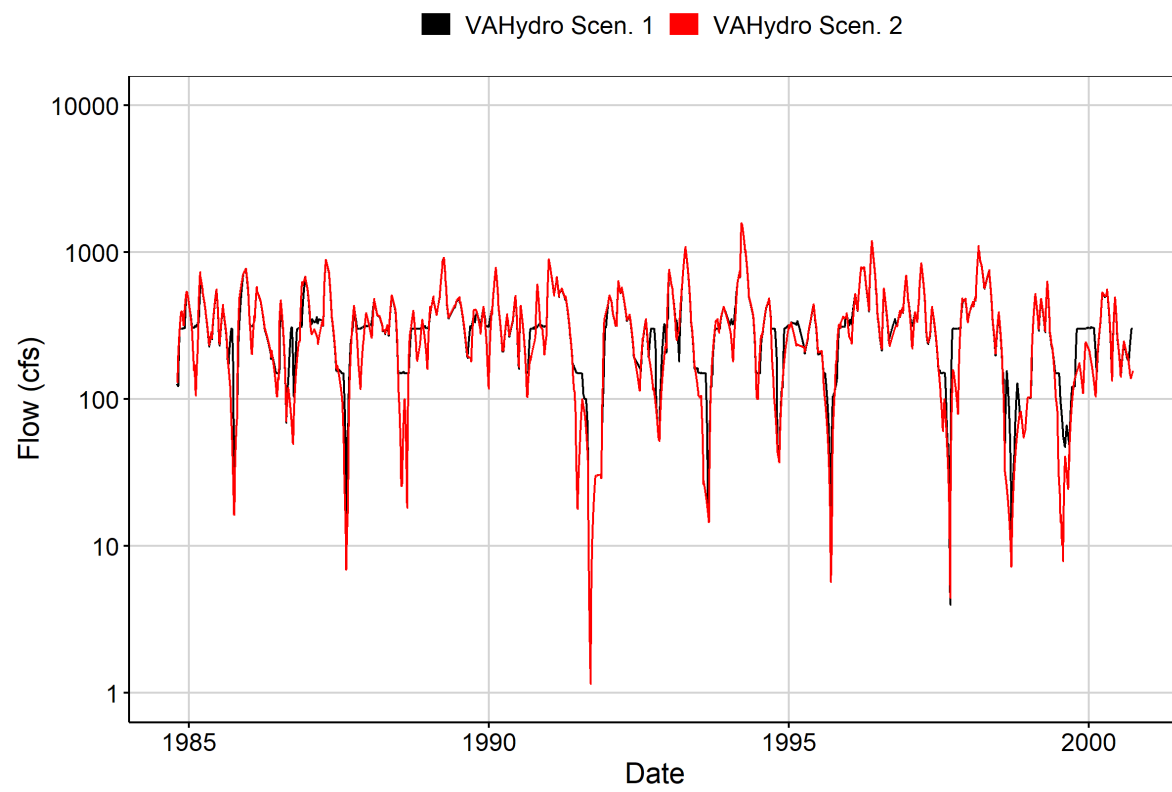


Fig. 5: Combined Baseflow

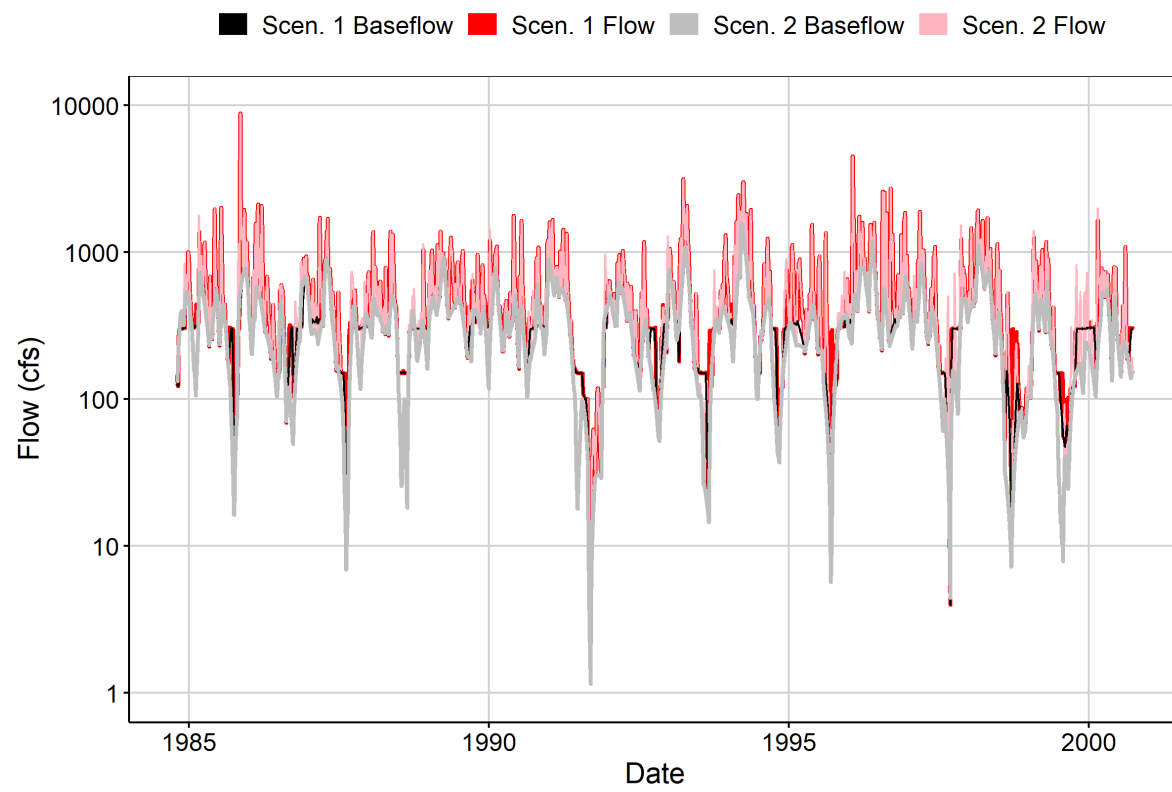


Fig. 6: Largest Difference Segment

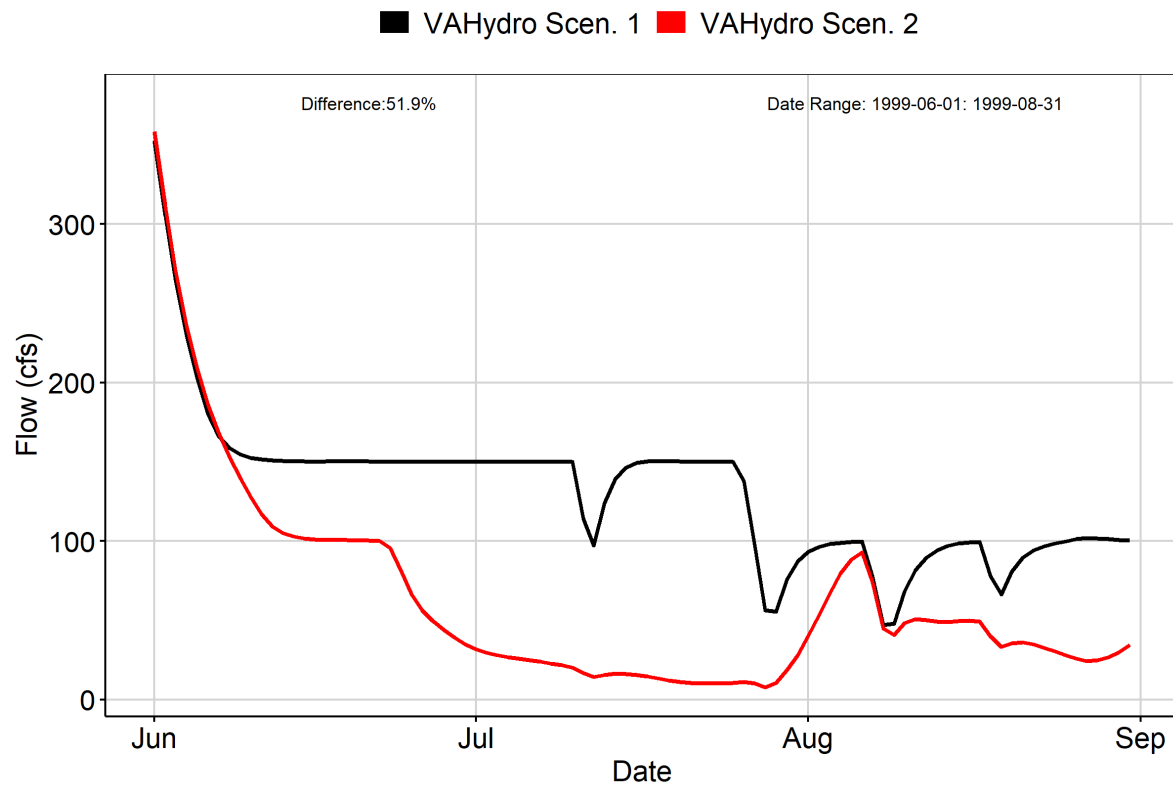


Fig. 7: Second Largest Difference Segment

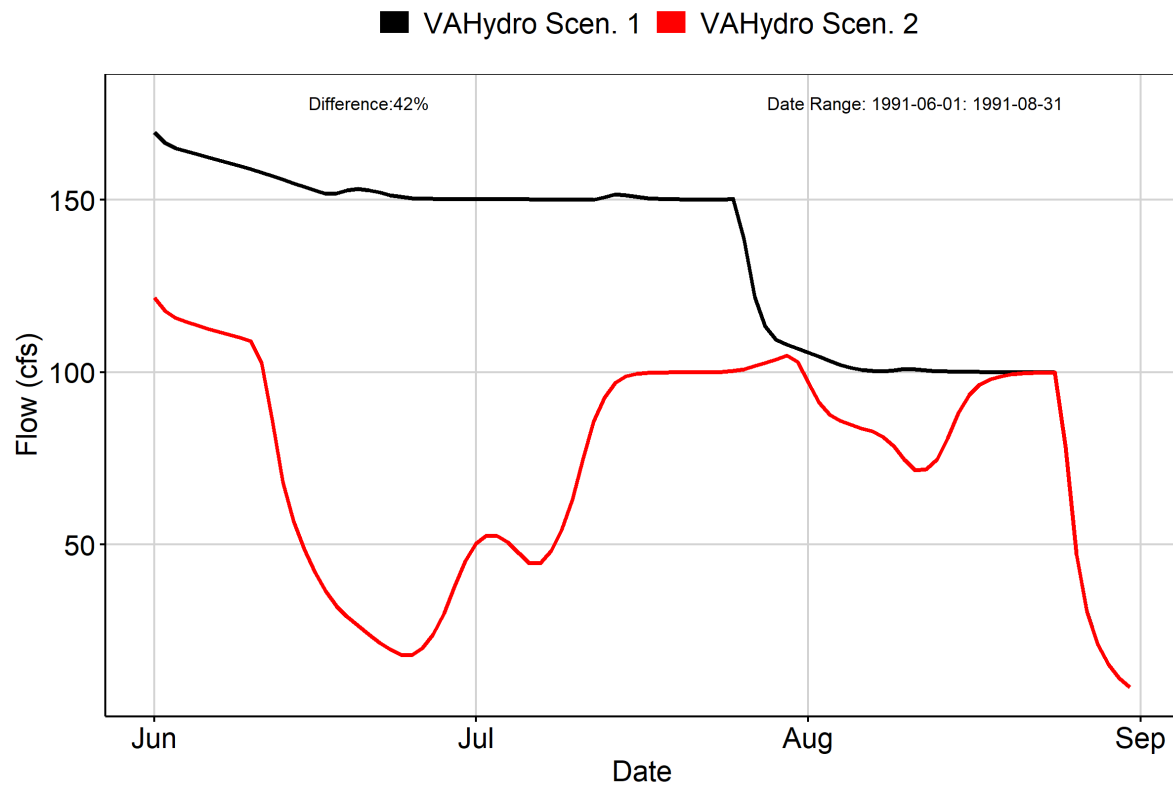


Fig. 8: Third Largest Difference Segment

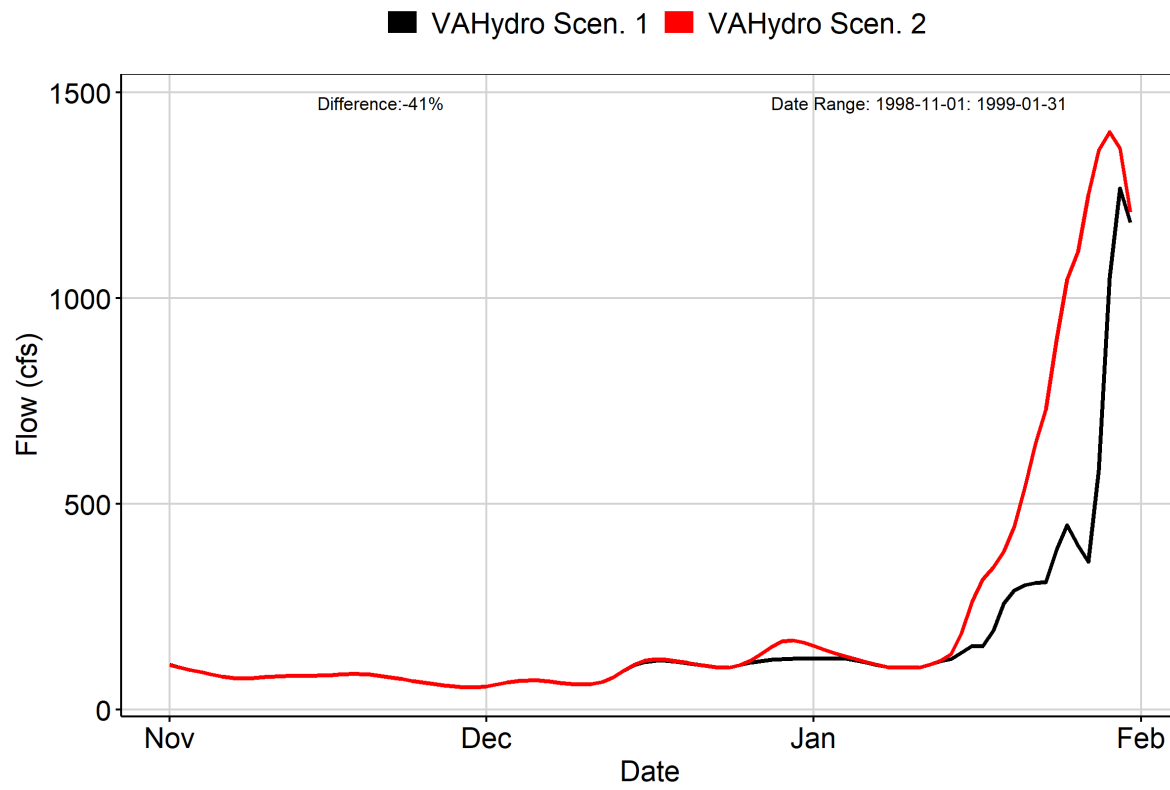


Fig. 9A: Residuals Plot

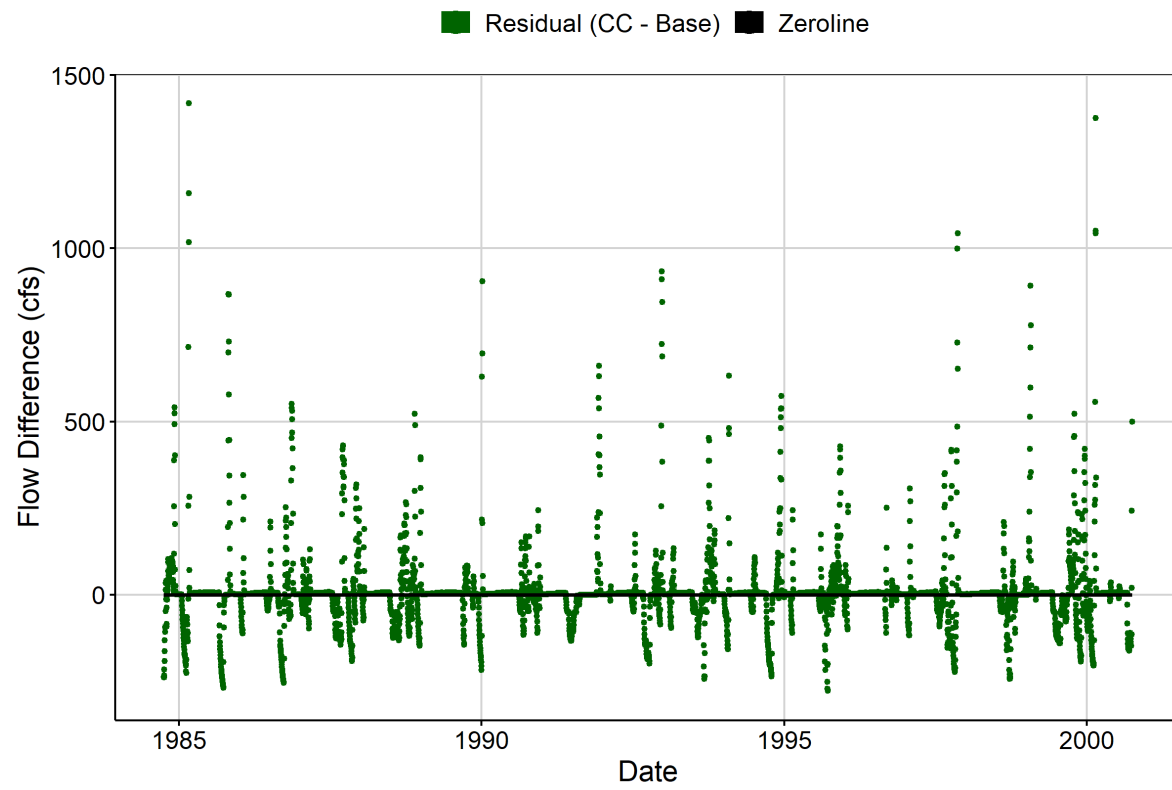


Fig. 9B: Area Weighted Residuals Plot

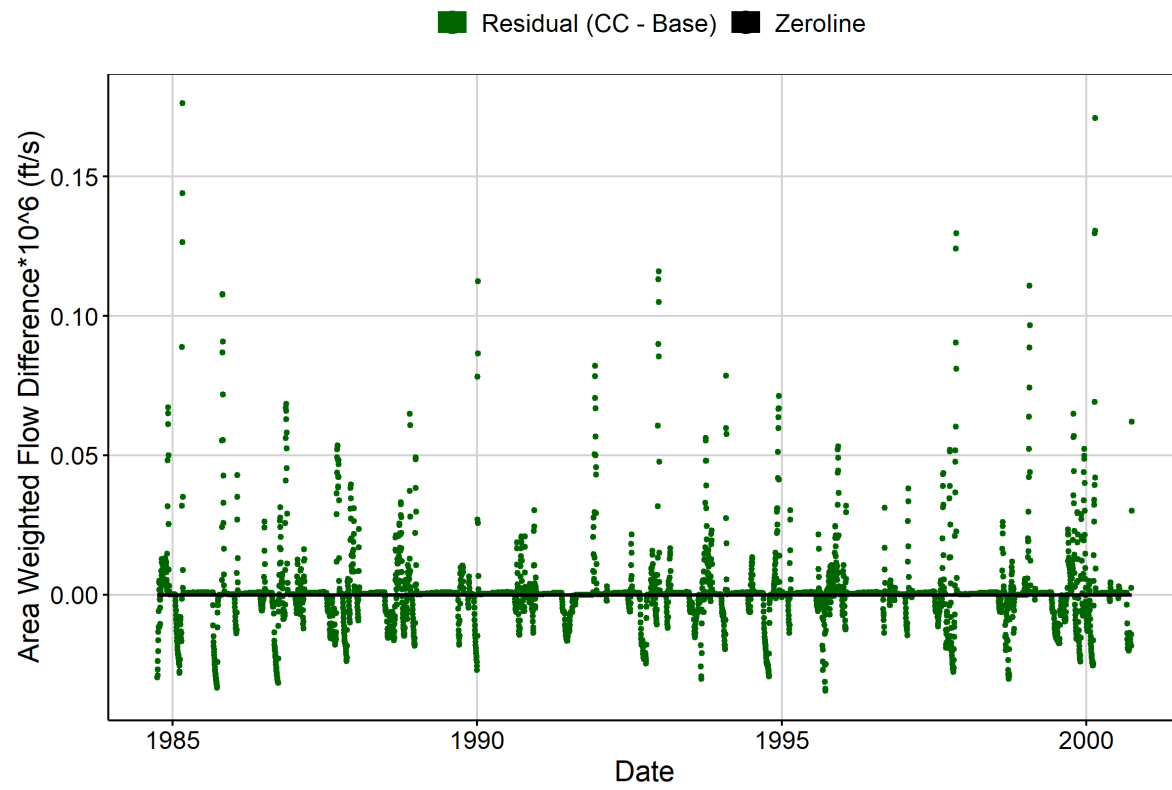


Fig. 10: VA Hydro Scen. 1 Runit Values (Outliers Excluded)

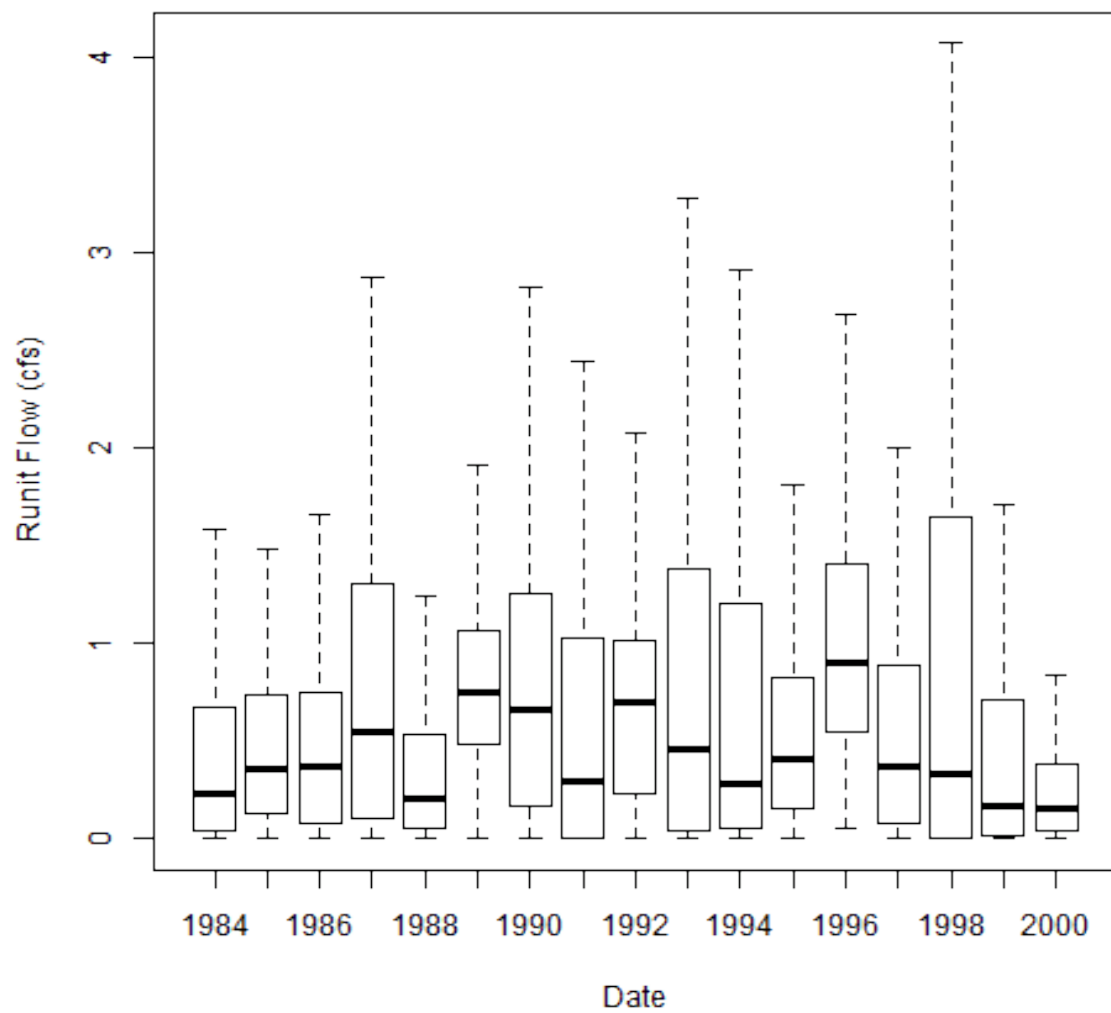


Fig. 11: Smallest Difference Segment

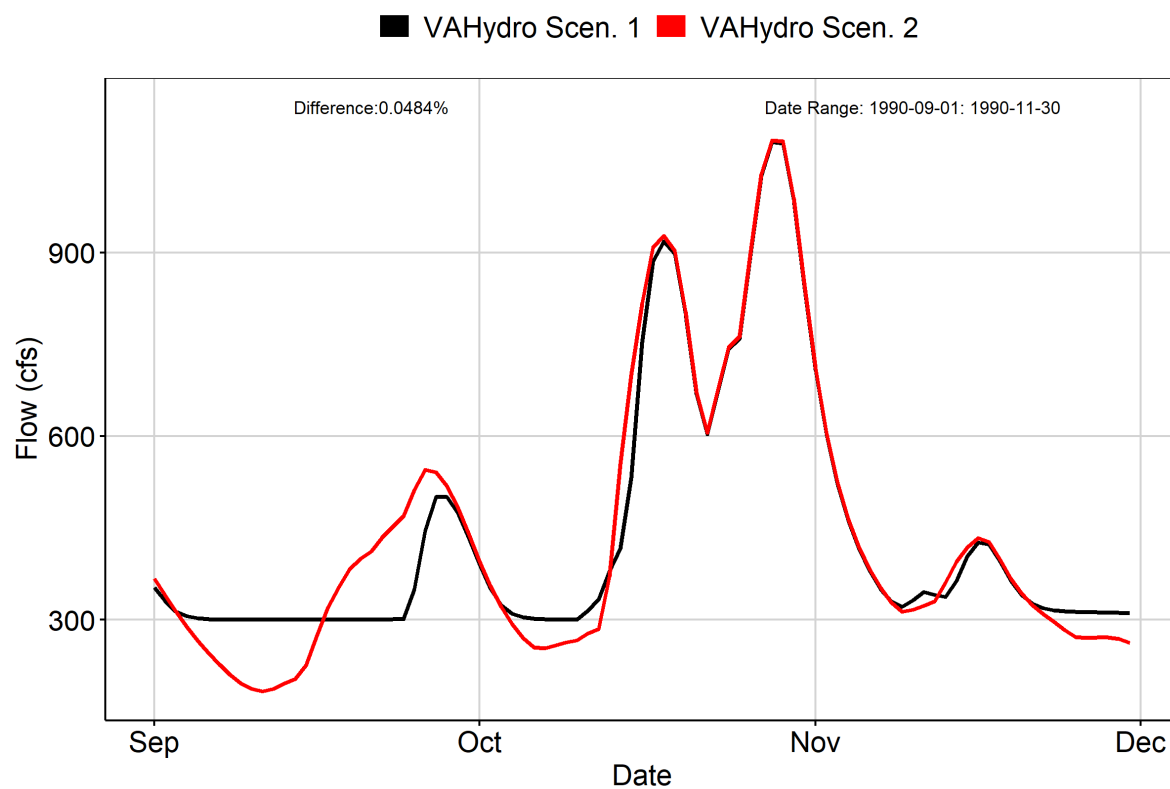


Fig. 12: Second Smallest Difference Segment

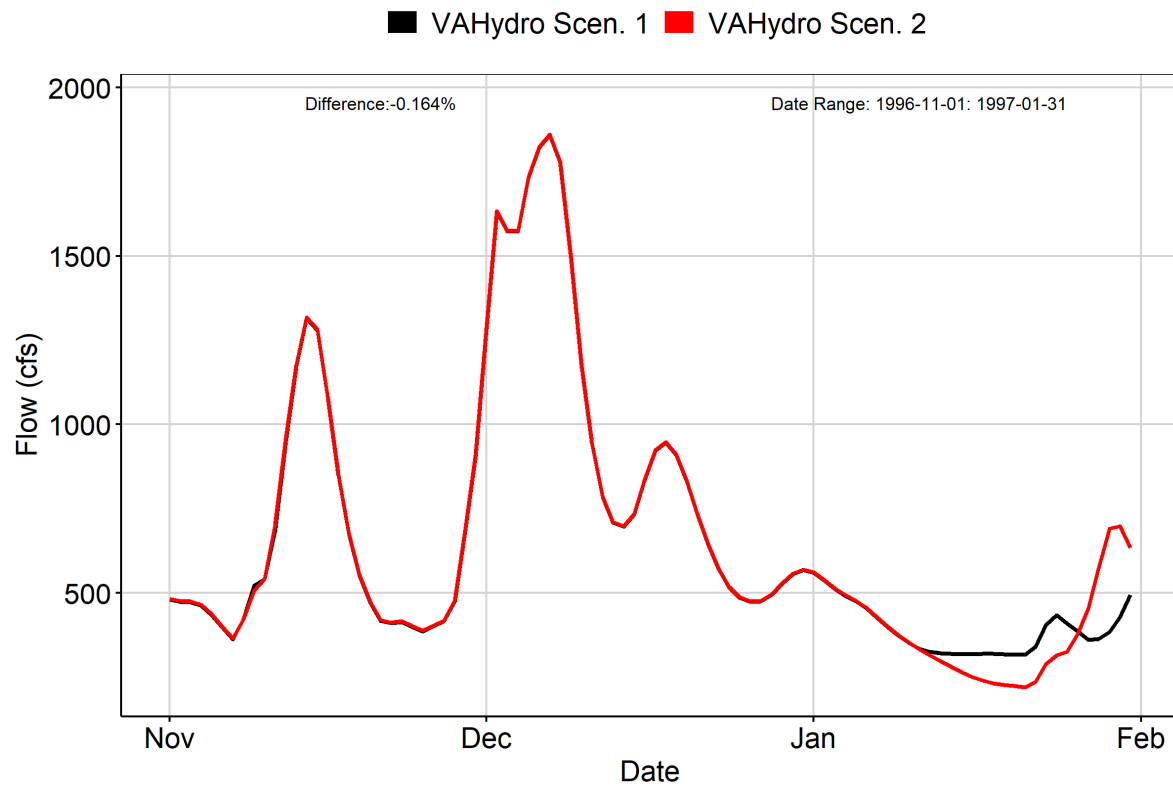


Fig. 13: Third Smallest Difference Segment

