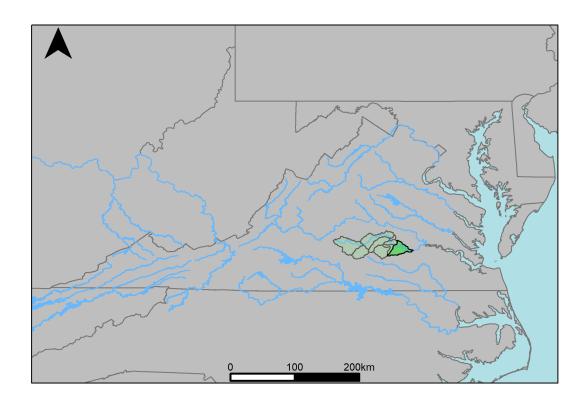
# River Segment JA5\_7480\_0001: VA Hydro Run 120 vs. VA Hydro Run 121



The average daily discharge change between scenario 1 and scenario 2 for the 20 year timespan was 6.95716%, with 3.33% of its rolling three month time spans above 20% difference.

Table 1: Monthly Low Flows

	Scen. 1	Scen. 2	Pct. Difference
Jan. Low Flow	136	153	13
Feb. Low Flow	202	220	8.92
Mar. Low Flow	422	464	9.87
Apr. Low Flow	717	735	2.52
May Low Flow	948	975	2.88
Jun. Low Flow	948	982	3.67
Jul. Low Flow	651	663	1.75
Aug. Low Flow	429	449	4.81
Sep. Low Flow	234	241	2.93
Oct. Low Flow	143	147	3.03
Nov. Low Flow	127	135	6.54
Dec. Low Flow	114	117	2.64

Table 2: Monthly Average Flows

	Scen. 1	Scen. 2	Pct. Difference
Overall Mean Flow	1090	1160	6.96
Jan. Mean Flow	1620	1770	8.99
Feb. Mean Flow	2070	2210	6.58
Mar. Mean Flow	2380	2460	3.3
Apr. Mean Flow	1750	1830	4.64
May Mean Flow	1070	1130	5.56
Jun. Mean Flow	596	619	3.81
Jul. Mean Flow	332	356	7.07
Aug. Mean Flow	331	364	9.83
Sep. Mean Flow	482	557	15.5
Oct. Mean Flow	568	632	11.3
Nov. Mean Flow	764	831	8.79
Dec. Mean Flow	1150	1270	10.9

Table 3: Monthly High Flows

	Scen. 1	Scen. 2	Pct. Difference
Jan. High Flow	631	735	16.6
Feb. High Flow	951	1030	8.55
Mar. High Flow	1480	1720	16.6
Apr. High Flow	3220	3270	1.59
May High Flow	3000	3310	10.4
Jun. High Flow	3550	3690	3.95
Jul. High Flow	3190	3700	16
Aug. High Flow	1960	2210	12.5
Sep. High Flow	711	743	4.46
Oct. High Flow	424	450	6.04
Nov. High Flow	546	616	12.9
Dec. High Flow	455	476	4.45

Table 4: Period Low Flows

	Scen. 1	Scen. 2	Pct. Difference
Min. 1 Day Min	32.8	35.1	6.85
Med. 1 Day Min	87.7	89.7	2.27
Min. 3 Day Min	33.9	36.2	6.95
Med. 3 Day Min	89.4	94.6	5.81
Min. 7 Day Min	36	38.6	7.08
Med. 7 Day Min	99.1	102	2.62
Min. 30 Day Min	48.2	50.5	4.71
Med. 30 Day Min	123	132	7.18
Min. 90 Day Min	85.7	92.4	7.74
Med. 90 Day Min	240	253	5.18
7Q10	54	56.3	4.35
Year of 90-Day Min. Flow	2000	2000	0
Drought Year Mean	605	713	17.8
Mean Baseflow	606	634	4.58

Table 5: Period High Flows

	Scen. 1	Scen. 2	Pct. Difference
Max. 1 Day Max	19200	20400	6.4
Med. 1 Day Max	8090	8760	8.28
Max. 3 Day Max	17300	18400	5.97
Med. 3 Day Max	7600	8180	7.61
Max. 7 Day Max	12800	13500	5.12
Med. 7 Day Max	6150	6420	4.48
Max. 30 Day Max	7480	8190	9.46
Med. 30 Day Max	2920	3080	5.59
Max. 90 Day Max	5580	6030	7.97
Med. 90 Day Max	1990	2030	1.58

Table 6: Non-Exceedance Flows

	Scen. 1	Scen. 2	Pct. Difference
1% Non-Exceedance	59.2	61.6	4.08
5% Non-Exceedance	98.7	103	4.43
50% Non-Exceedance	635	675	6.38
95% Non-Exceedance	3600	3850	7.05
99% Non-Exceedance	7820	8430	7.82
Sept. $10\%$ Non-Exceedance	91.7	95.9	4.57

Fig. 1: Hydrograph

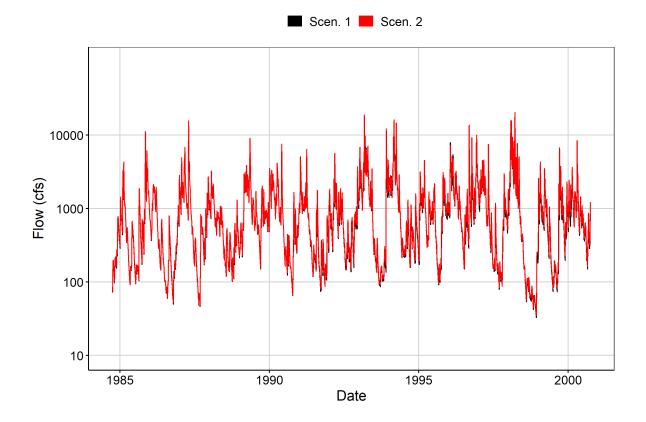


Fig. 2: Zoomed Hydrograph

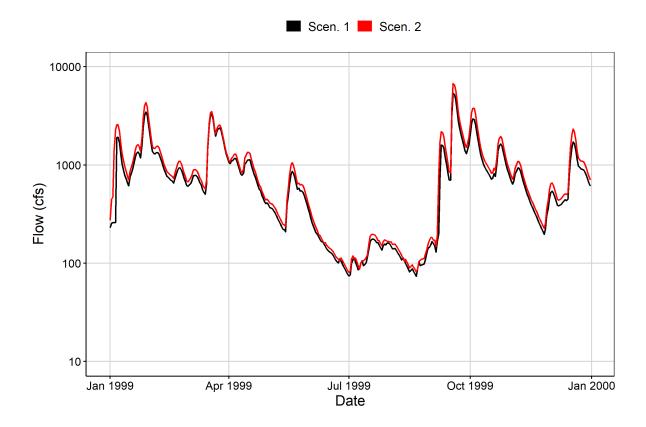


Fig. 3: Flow Exceedance

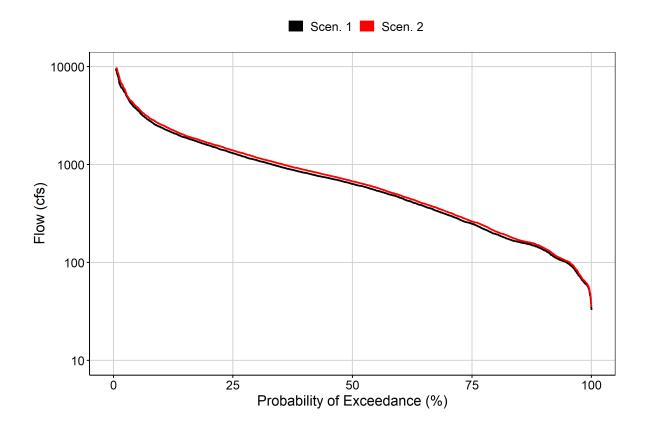


Fig. 4: Baseflow

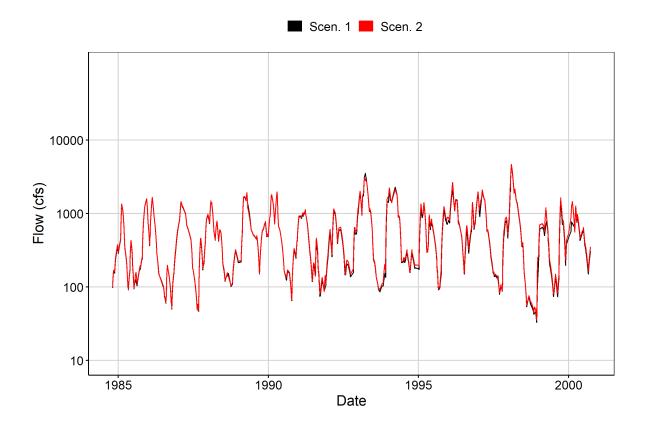


Fig. 5: Combined Baseflow

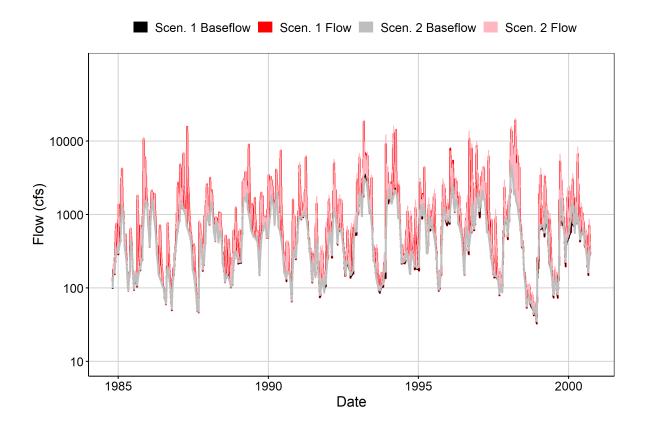


Fig. 6: Largest Difference Period

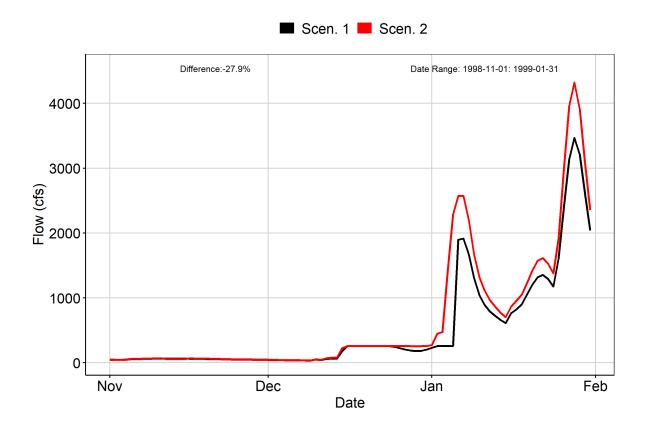


Fig. 7: Second Largest Difference Period

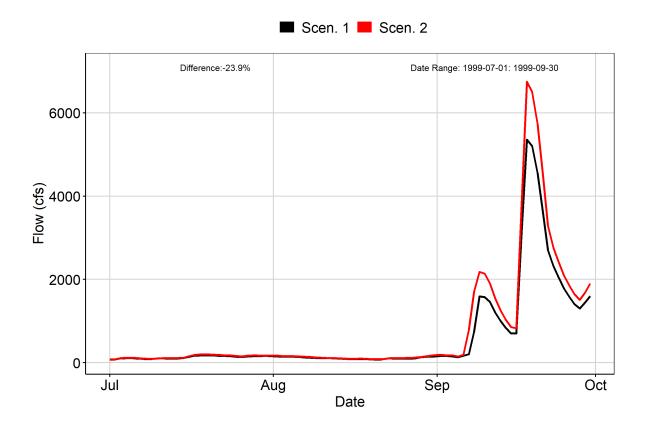


Fig. 8: Third Largest Difference Period

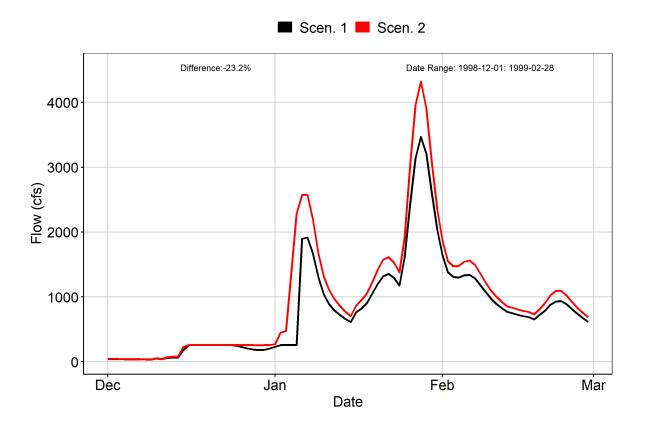


Fig. 9A: Residuals Plot

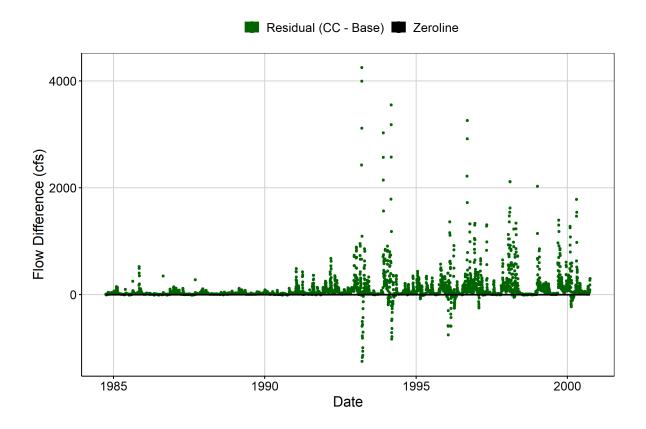


Fig. 9B: Area Weighted Residuals Plot

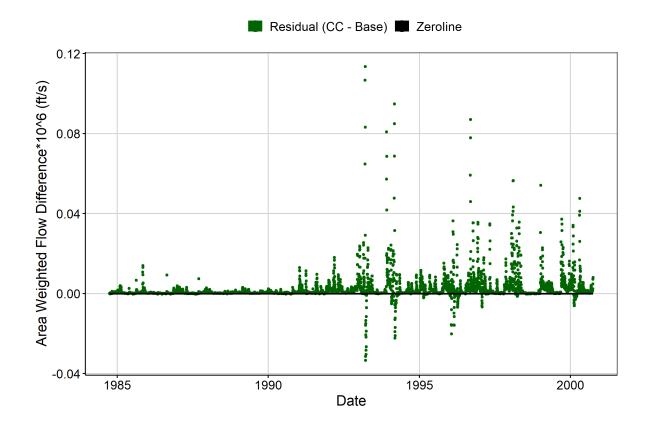
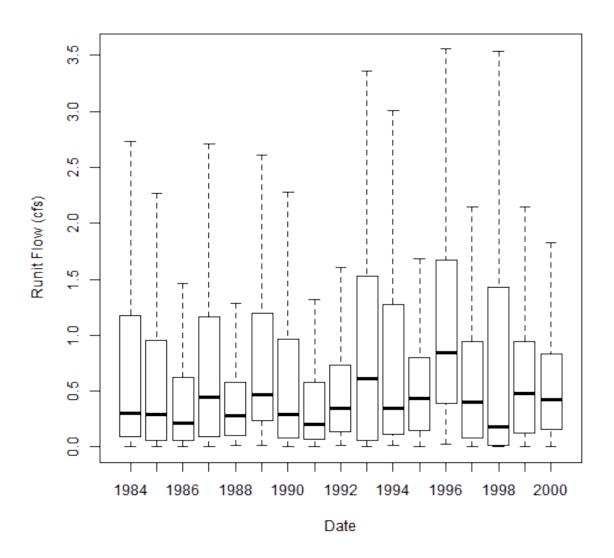


Fig. 10: VA Hydro Scen. 1 Runit Values (Outliers Excluded)



Tab: Annual IQR of Local Runoff Inflows

	IQR of Runit Flows (cfs/sq. mi) [25th, 75th]
1984	1.08 [0.0883, 1.17]
1985	0.888 [0.0603, 0.948]
1986	$0.56 \ [0.0623, \ 0.622]$
1987	1.06 [0.0959, 1.16]
1988	$0.48 \ [0.0998, \ 0.58]$
1989	0.965 [0.235, 1.2]
1990	0.884 [0.082, 0.966]
1991	0.508 [0.0648, 0.573]

	$\rm IQR$ of Runit Flows (cfs/sq. mi) [25th, 75th
1992	0.595 [0.138, 0.733]
1993	1.47 [0.0637, 1.53]
1994	1.15 [0.116, 1.27]
1995	0.643 [0.151, 0.794]
1996	1.27 [0.391, 1.66]
1997	$0.868 \ [0.0754, \ 0.943]$
1998	1.42 [0.0141, 1.43]
1999	0.822 [0.12, 0.942]
2000	0.671 [0.161, 0.832]

Fig. 11: Smallest Difference Period

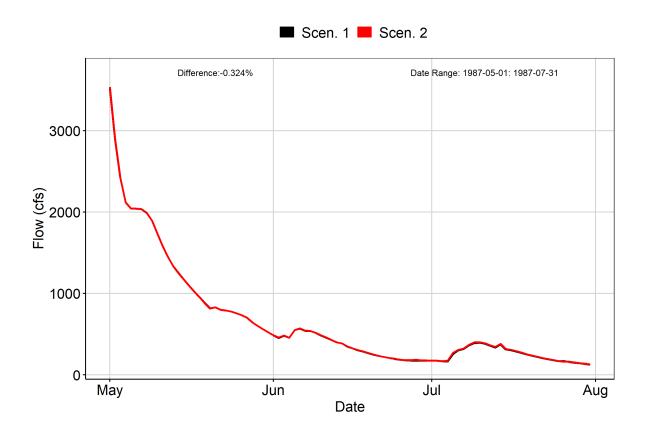


Fig. 12: Second Smallest Difference Period

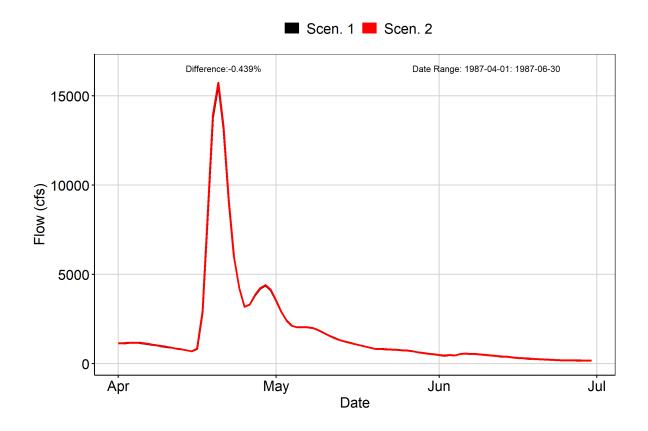
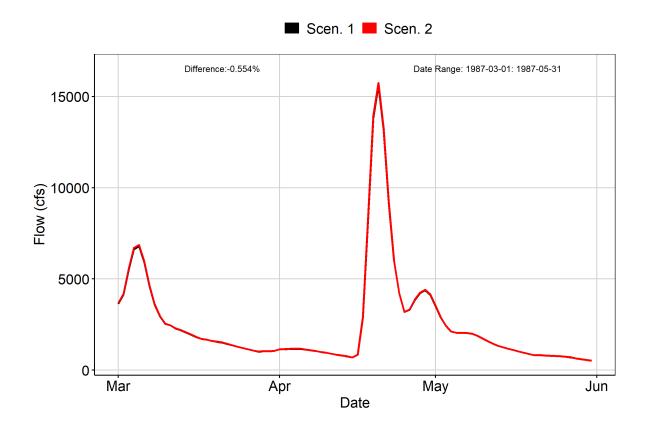


Fig. 13: Third Smallest Difference Period



## Additional Tables: Land-River Segment Flow Metrics

Tab: Mean Flows by Flow Type: LR-Seg cbp6\_N51007\_JA5\_7480\_0001

	Mean Unit Flow (cfs/sq. mi)
SURface Outflow	0.00143
InterFloW Outflow	0.000262
Active GroundWater Outflow	0.000452

Tab: Ratio of Zero-Flow Days by Flow Type: LR-Seg cbp6\_N51007\_JA5\_7480\_0001

	Ratio of Days with Zero Flow to Total Days
SURface Outflow InterFloW Outflow Active GroundWater Outflow	0.716 0.501 0.326

Tab: IQR for SURface Outflow: LR-Seg cbp6\_N51007\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th
1984	2.88e-06 [0, 2.88e-06]
1985	0 [0, 0]
1986	2.38e-06 [0, 2.38e-06]
1987	3.4e-06 [0, 3.4e-06]
1988	0 [0, 0]
1989	1.7e-05 [0, 1.7e-05]
1990	1.17e-09 [0, 1.17e-09]
1991	0 [0, 0]
1992	2.55e-06 [0, 2.55e-06]
1993	6.91e-06 [0, 6.91e-06]
1994	5.33e-06 [0, 5.33e-06]
1995	1.21e-06 [0, 1.21e-06]
1996	2.82e-05 [0, 2.82e-05]
1997	3.76e-09 [0, 3.76e-09]
1998	0 [0, 0]
1999	0 [0, 0]
2000	4.6e-06 [0, 4.6e-06]

Tab: IQR for InterFloW Outflow: LR-Seg cbp6\_N51007\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	2.57e-05 [0, 2.57e-05]
1985	1.36e-05 [0, 1.36e-05]
1986	1.59e-05 [0, 1.59e-05]
1987	5.42e-05 [0, 5.42e-05]
1988	2.43e-05 [0, 2.43e-05]
1989	0.000105 [0, 0.000105]
1990	3.3e-05 [0, 3.3e-05]
1991	1.56e-05 [0, 1.56e-05]
1992	3.34e-05 [0, 3.34e-05]
1993	0.000131 [0, 0.000131]
1994	7.26e-05 [0, 7.26e-05]
1995	7.29e-05 [0, 7.29e-05]
1996	0.000228 [0, 0.000228]
1997	6.68e-05 [0, 6.68e-05]
1998	3.28e-05 [0, 3.28e-05]
1999	6.14e-05 [0, 6.14e-05]
2000	5.41e-05 [0, 5.41e-05]

Tab: IQR for Active GroundWater Outflow: LR-Seg cbp6\_N51007\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	0.000702 [0, 0.000702]
1985	0.000681 [0, 0.000681]
1986	0.000544 [0, 0.000544]
1987	9e-04 [0, 9e-04]
1988	0.000605 [0, 0.000605]
1989	0.000787 [0, 0.000787]
1990	0.000695 [0, 0.000695]
1991	0.00056 [0, 0.00056]
1992	0.000695 [0, 0.000695]
1993	0.00104 [0, 0.00104]
1994	0.000728 [0, 0.000728]
1995	0.00076 [0, 0.00076]
1996	0.000957 [0, 0.000957]
1997	0.000555 [0, 0.000555]
1998	0.000532 [0, 0.000532]
1999	0.000576 [0, 0.000576]
2000	$0.000655 \ [0,  0.000655]$

Tab: Mean Flows by Land Use: LR-Seg cbp6\_N51007\_JA5\_7480\_0001

	Mean Unit Flow (cfs/sq. mi)
aop	0.000436
$\operatorname{cch}$	0.000649
cci	0.00117
ccn	0.000669
$\operatorname{cfr}$	0.000372
$\operatorname{cir}$	0.00117
cmo	0.00039
$\operatorname{cnr}$	0.00117
ctg	0.000649
dbl	0.000465
$\operatorname{fnp}$	0.00117
for	0.000372
fsp	0.00117
gom	0.000465
gwm	0.000465
hfr	0.000501
lhy	0.000436
mch	0.000649
mci	0.00117
mcn	0.000669
$_{ m mir}$	0.00117
mnr	0.00117
$\operatorname{mtg}$	0.000649
nch	0.000649
nci	0.00117
$_{ m nir}$	0.00117
nnr	0.00117
$_{ m ntg}$	0.000649
oac	0.000465
ohy	0.000436
osp	0.00039
pas	0.000436
$\operatorname{sch}$	0.000465
$\operatorname{scl}$	0.000465
sgg	0.000465
sho	0.00117
som	0.000465
soy	0.000465
$\operatorname{stb}$	0.00117
stf	0.00117
swm	0.000465
wfp	0.000372
wto	0.000372

Tab: Ratio of Zero-Flow Days by Land Use: LR-Seg cbp6\_N51007\_JA5\_7480\_0001

	Ratio of Days with Zero Flow to Total Days
aop	0.325
$\operatorname{cch}$	0.317
cci	0.908
$\operatorname{ccn}$	0.306
$\operatorname{cfr}$	0.357
cir	0.908
cmo	0.339
$\operatorname{cnr}$	0.908
ctg	0.317
dbl	0.318
$\operatorname{fnp}$	0.907
for	0.357
fsp	0.907
gom	0.318
gwm	0.318
hfr	0.308
lhy	0.324
mch	0.317
mci	0.908
mcn	0.306
$_{ m mir}$	0.908
mnr	0.908
$\operatorname{mtg}$	0.317
$\operatorname{nch}$	0.317
nci	0.908
$_{ m nir}$	0.908
nnr	0.908
$\operatorname{ntg}$	0.317
oac	0.318
ohy	0.324
osp	0.34
pas	0.324
$\operatorname{sch}$	0.318
$\operatorname{scl}$	0.318
sgg	0.318
sho	0.908
som	0.318
soy	0.318
$\operatorname{stb}$	0.908
$\operatorname{stf}$	0.908
swm	0.318
wfp	0.357
wto	0.357

#### Tab: Mean Flows by Flow Type: LR-Seg cbp6\_N51053\_JA5\_7480\_0001

	Mean Unit Flow (cfs/sq. mi)
SURface Outflow	0.00127
InterFloW Outflow	0.000216
Active GroundWater Outflow	0.000703

## Tab: Ratio of Zero-Flow Days by Flow Type: LR-Seg cbp6\_N51053\_JA5\_7480\_0001

	Ratio of Days with Zero Flow to Total Days
SURface Outflow	0.673
InterFloW Outflow	0.335
Active GroundWater Outflow	0.423

## Tab: IQR for SURface Outflow: LR-Seg cbp6\_N51053\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	9.21e-07 [0, 9.21e-07]
1985	8.84e-09 [0, 8.84e-09]
1986	5.37e-07 [0, 5.37e-07]
1987	4.83e-07 [0, 4.83e-07]
1988	7.64e-08 [0, 7.64e-08]
1989	7.63e-06 [0, 7.63e-06]
1990	1.05e-07 [0, 1.05e-07]
1991	1.8e-09 [0, 1.8e-09]
1992	4.18e-07 [0, 4.18e-07]
1993	2.43e-06 [0, 2.43e-06]
1994	1.39e-06 [0, 1.39e-06]
1995	6.9e-08 [0, 6.9e-08]
1996	1.1e-05 [0, 1.1e-05]
1997	8.74e-09 [0, 8.74e-09]
1998	1.46e-07 [0, 1.46e-07]
1999	5.33e-09 [0, 5.33e-09]
2000	1.81e-06 [0, 1.81e-06]

Tab: IQR for InterFloW Outflow: LR-Seg cbp6\_N51053\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	3.49e-05 [0, 3.49e-05]
1985	5.76e-05 [0, 5.76e-05]
1986	3.24e-05 [0, 3.24e-05]
1987	0.000117 [0, 0.000117]
1988	2.95e-05 [0, 2.95e-05]
1989	0.000155 [0, 0.000155]
1990	8.12e-05 [0, 8.12e-05]
1991	3.07e-05 [0, 3.07e-05]
1992	3.79e-05 [0, 3.79e-05]
1993	0.000173 [0, 0.000173]
1994	$0.000106 \ [0,  0.000106]$
1995	6.43e-05 [0, 6.43e-05]
1996	0.000444 [0, 0.000444]
1997	$0.00023 \ [0,  0.00023]$
1998	0.000296 [0, 0.000296]
1999	$0.000226 \ [0, \ 0.000226]$
2000	0.00014 [0, 0.00014]

Tab: IQR for Active GroundWater Outflow: LR-Seg cbp6\_N51053\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	0.00133 [0, 0.00133]
1985	$0.00122 \ [0,  0.00122]$
1986	0.000877 [0, 0.000877]
1987	0.00146 [0, 0.00146]
1988	0.00092 [0, 0.00092]
1989	$0.00131 \ [0, 0.00131]$
1990	0.00115 [0, 0.00115]
1991	$0.000838 \ [0, \ 0.000838]$
1992	0.00113 [0, 0.00113]
1993	0.00168 [0, 0.00168]
1994	0.00119 [0, 0.00119]
1995	0.00111 [0, 0.00111]
1996	0.00175 [0, 0.00175]
1997	$0.00103 \ [0,  0.00103]$
1998	$0.00106 \ [0, 0.00106]$
1999	0.00115 [0, 0.00115]
2000	$0.00107 \ [0,  0.00107]$

Tab: Mean Flows by Land Use: LR-Seg cbp6\_N51053\_JA5\_7480\_0001

	Mean Unit Flow (cfs/sq. mi)
aop	0.000458
$\operatorname{cch}$	0.000655
cci	0.00117
$\operatorname{ccn}$	0.000708
$\operatorname{cfr}$	0.000376
$\operatorname{cir}$	0.00117
cmo	0.00042
$\operatorname{cnr}$	0.00117
ctg	0.000655
dbl	0.0005
$\operatorname{fnp}$	0.00117
for	0.000376
fsp	0.00117
gom	0.0005
gwm	0.0005
hfr	0.0005
lhy	0.000458
mch	0.000655
mci	0.00117
mcn	0.000708
$_{ m mir}$	0.00117
mnr	0.00117
$\operatorname{mtg}$	0.000655
nch	0.000655
nci	0.00117
nir	0.00117
nnr	0.00117
ntg	0.000655
oac	0.0005
ohy	0.000458
osp	0.00042
pas	0.000458
sch	0.0005
scl	0.0005
sgg	0.0005
sho	0.00117
som	0.0005
soy	0.0005
$\operatorname{stb}$	0.00117
stf	0.00117
swm	0.0005
wfp	0.000376
wto	0.000376

Tab: Ratio of Zero-Flow Days by Land Use: LR-Seg cbp6\_N51053\_JA5\_7480\_0001

	Ratio of Days with Zero Flow to Total Days
aop	0.268
$\operatorname{cch}$	0.267
cci	0.905
ccn	0.228
$\operatorname{cfr}$	0.33
$\operatorname{cir}$	0.905
cmo	0.291
$\operatorname{cnr}$	0.905
ctg	0.267
dbl	0.253
$\operatorname{fnp}$	0.904
for	0.332
fsp	0.904
gom	0.253
gwm	0.253
hfr	0.267
lhy	0.267
mch	0.267
mci	0.905
mcn	0.228
$_{ m mir}$	0.905
mnr	0.905
$\operatorname{mtg}$	0.267
$\operatorname{nch}$	0.267
nci	0.905
$_{ m nir}$	0.905
nnr	0.905
$\operatorname{ntg}$	0.267
oac	0.253
ohy	0.267
osp	0.294
pas	0.267
sch	0.253
$\operatorname{scl}$	0.253
sgg	0.253
sho	0.905
som	0.253
soy	0.253
$\operatorname{stb}$	0.905
$\operatorname{stf}$	0.905
swm	0.253
wfp	0.332
wto	0.332

#### Tab: Mean Flows by Flow Type: LR-Seg cbp6\_N51135\_JA5\_7480\_0001

	Mean Unit Flow (cfs/sq. mi)
SURface Outflow	0.0015
InterFloW Outflow	0.000247
Active GroundWater Outflow	0.000391

## Tab: Ratio of Zero-Flow Days by Flow Type: LR-Seg cbp6\_N51135\_JA5\_7480\_0001

	Ratio of Days with Zero Flow to Total Days
SURface Outflow	0.707
InterFloW Outflow	0.482
Active GroundWater Outflow	0.326

#### Tab: IQR for SURface Outflow: LR-Seg cbp6\_N51135\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	3.99e-06 [0, 3.99e-06]
1985	4.98e-10 [0, 4.98e-10]
1986	2.45e-06 [0, 2.45e-06]
1987	3.37e-06 [0, 3.37e-06]
1988	5.6e-08 [0, 5.6e-08]
1989	2.72e-05 [0, 2.72e-05]
1990	5.06e-07 [0, 5.06e-07]
1991	0 [0, 0]
1992	4.52e-06 [0, 4.52e-06]
1993	8.25e-06 [0, 8.25e-06]
1994	5.91e-06 [0, 5.91e-06]
1995	1.73e-06 [0, 1.73e-06]
1996	5.28e-05 [0, 5.28e-05]
1997	1.12e-07 [0, 1.12e-07]
1998	0 [0, 0]
1999	3.83e-09 [0, 3.83e-09]
2000	4.9e-06 [0, 4.9e-06]

Tab: IQR for InterFloW Outflow: LR-Seg cbp6\_N51135\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	2.9e-05 [0, 2.9e-05]
1985	1.99e-05 [0, 1.99e-05]
1986	2.14e-05 [0, 2.14e-05]
1987	6.66e-05 [0, 6.66e-05]
1988	3.93e-05 [0, 3.93e-05]
1989	0.000157 [0, 0.000157]
1990	4.96e-05 [0, 4.96e-05]
1991	2.12e-05 [0, 2.12e-05]
1992	5.09e-05 [0, 5.09e-05]
1993	0.000153 [0, 0.000153]
1994	7.52e-05 [0, 7.52e-05]
1995	7.45e-05 [0, 7.45e-05]
1996	0.000278 [0, 0.000278]
1997	8.52e-05 [0, 8.52e-05]
1998	3.88e-05 [0, 3.88e-05]
1999	7.01e-05 [0, 7.01e-05]
2000	6.49e-05 [0, 6.49e-05]

Tab: IQR for Active GroundWater Outflow: LR-Seg cbp6\_N51135\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	0.000554 [0, 0.000554]
1985	0.00062 [0, 0.00062]
1986	0.000487 [0, 0.000487]
1987	0.000765 [0, 0.000765]
1988	0.000517 [0, 0.000517]
1989	0.000727 [0, 0.000727]
1990	0.000606 [0, 0.000606]
1991	$0.000463 \ [0, \ 0.000463]$
1992	0.000594 [0, 0.000594]
1993	0.000892 [0, 0.000892]
1994	0.00064 [0, 0.00064]
1995	0.000611 [0, 0.000611]
1996	0.000872 [0, 0.000872]
1997	0.000498 [0, 0.000498]
1998	0.000432 [0, 0.000432]
1999	0.000481 [0, 0.000481]
2000	0.000569 [0, 0.000569]

Tab: Mean Flows by Land Use: LR-Seg cbp6\_N51135\_JA5\_7480\_0001

	Mean Unit Flow (cfs/sq. mi)
aop	0.000423
$\operatorname{cch}$	0.000635
cci	0.00119
ccn	0.000655
$\operatorname{cfr}$	0.000362
$\operatorname{cir}$	0.00119
cmo	0.000376
$\operatorname{cnr}$	0.00119
ctg	0.000635
dbl	0.000456
$\operatorname{fnp}$	0.00119
for	0.000362
fsp	0.00119
gom	0.000456
gwm	0.000456
hfr	0.000487
lhy	0.000423
mch	0.000635
mci	0.00119
mcn	0.000655
$_{ m mir}$	0.00119
mnr	0.00119
$\operatorname{mtg}$	0.000635
$\operatorname{nch}$	0.000635
nci	0.00119
nir	0.00119
nnr	0.00119
ntg	0.000635
oac	0.000456
ohy	0.000423
osp	0.000376
pas	0.000423
sch	0.000456
$\operatorname{scl}$	0.000456
sgg	0.000456
sho	0.00119
som	0.000456
soy	0.000456
$\operatorname{stb}$	0.00119
$\operatorname{stf}$	0.00119
swm	0.000456
wfp	0.000362
wto	0.000362

Tab: Ratio of Zero-Flow Days by Land Use: LR-Seg cbp6\_N51135\_JA5\_7480\_0001

	Ratio of Days with Zero Flow to Total Days
aop	0.309
$\operatorname{cch}$	0.31
cci	0.907
ccn	0.302
$\operatorname{cfr}$	0.338
cir	0.907
cmo	0.322
$\operatorname{cnr}$	0.907
ctg	0.31
dbl	0.303
$\operatorname{fnp}$	0.906
for	0.336
fsp	0.906
gom	0.303
gwm	0.303
hfr	0.297
lhy	0.308
$\operatorname{mch}$	0.31
mci	0.907
mcn	0.302
$\min$	0.907
$\operatorname{mnr}$	0.907
$\operatorname{mtg}$	0.31
$\operatorname{nch}$	0.31
nci	0.907
$_{ m nir}$	0.907
$\operatorname{nnr}$	0.907
$\operatorname{ntg}$	0.31
oac	0.303
ohy	0.308
osp	0.321
pas	0.308
$\operatorname{sch}$	0.303
$\operatorname{scl}$	0.303
sgg	0.303
sho	0.907
som	0.303
soy	0.303
$\operatorname{stb}$	0.907
$\operatorname{stf}$	0.907
$\operatorname{swm}$	0.303
wfp	0.336
wto	0.336

#### Tab: Mean Flows by Flow Type: LR-Seg cbp6\_N51041\_JA5\_7480\_0001

	Mean Unit Flow (cfs/sq. mi)
SURface Outflow	0.00135
InterFloW Outflow	0.000288
Active GroundWater Outflow	0.00048

## Tab: Ratio of Zero-Flow Days by Flow Type: LR-Seg cbp6\_N51041\_JA5\_7480\_0001

	Ratio of Days with Zero Flow to Total Days
SURface Outflow	0.69
InterFloW Outflow	0.477
Active GroundWater Outflow	0.447

#### Tab: IQR for SURface Outflow: LR-Seg cbp6\_N51041\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	1.87e-06 [0, 1.87e-06]
1985	1.74e-09 [0, 1.74e-09]
1986	1.03e-06 [0, 1.03e-06]
1987	9.02e-07 [0, 9.02e-07]
1988	5.8e-09 [0, 5.8e-09]
1989	1.32e-05 [0, 1.32e-05]
1990	6.24e-09 [0, 6.24e-09]
1991	0 [0, 0]
1992	1.69e-06 [0, 1.69e-06]
1993	5.73e-06 [0, 5.73e-06]
1994	3.16e-06 [0, 3.16e-06]
1995	3.41e-07 [0, 3.41e-07]
1996	1.94e-05 [0, 1.94e-05]
1997	1e-07 [0, 1e-07]
1998	8.87e-09 [0, 8.87e-09]
1999	1.55e-10 [0, 1.55e-10]
2000	2.39e-06 [0, 2.39e-06]

Tab: IQR for InterFloW Outflow: LR-Seg cbp6\_N51041\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	3.25e-05 [0, 3.25e-05]
1985	2.01e-05 [0, 2.01e-05]
1986	1.8e-05 [0, 1.8e-05]
1987	4.52e-05 [0, 4.52e-05]
1988	2.72e-05 [0, 2.72e-05]
1989	8.57e-05 [0, 8.57e-05]
1990	3.75e-05 [0, 3.75e-05]
1991	1.43e-05 [0, 1.43e-05]
1992	2.58e-05 [0, 2.58e-05]
1993	0.000141 [0, 0.000141]
1994	7.14e-05 [0, 7.14e-05]
1995	6.37e-05 [0, 6.37e-05]
1996	2e-04 [0, 2e-04]
1997	8.36e-05 [0, 8.36e-05]
1998	4.12e-05 [0, 4.12e-05]
1999	8.1e-05 [0, 8.1e-05]
2000	7.39e-05 [0, 7.39e-05]

Tab: IQR for Active GroundWater Outflow: LR-Seg cbp6\_N51041\_JA5\_7480\_0001

	IQR of Unit Flows (cfs/sq. mi) [25th, 75th]
1984	0.00104 [0, 0.00104]
1985	0.000844 [0, 0.000844]
1986	0.000565 [0, 0.000565]
1987	0.00101 [0, 0.00101]
1988	0.000642 [0, 0.000642]
1989	0.000977 [0, 0.000977]
1990	0.000743 [0, 0.000743]
1991	0.000575 [0, 0.000575]
1992	0.000783 [0, 0.000783]
1993	0.00118 [0, 0.00118]
1994	0.000848 [0, 0.000848]
1995	0.000824 [0, 0.000824]
1996	0.00108 [0, 0.00108]
1997	0.000758 [0, 0.000758]
1998	0.000566 [0, 0.000566]
1999	0.00074 [0, 0.00074]
2000	0.000601 [0, 0.000601]

Tab: Mean Flows by Land Use: LR-Seg cbp6\_N51041\_JA5\_7480\_0001

	Mean Unit Flow (cfs/sq. mi)
aop	0.000433
$\operatorname{cch}$	0.000629
cci	0.00115
$\operatorname{ccn}$	0.000673
$\operatorname{cfr}$	0.000366
$\operatorname{cir}$	0.00115
cmo	0.000401
$\operatorname{cnr}$	0.00115
ctg	0.000629
dbl	0.000469
$\operatorname{fnp}$	0.00115
for	0.000366
fsp	0.00115
gom	0.000469
gwm	0.000469
hfr	0.000476
lhy	0.000433
mch	0.000629
mci	0.00115
mcn	0.000673
$\min$	0.00115
mnr	0.00115
$\operatorname{mtg}$	0.000629
nch	0.000629
nci	0.00115
nir	0.00115
nnr	0.00115
$\operatorname{ntg}$	0.000629
oac	0.000469
ohy	0.000433
osp	0.0004
pas	0.000433
$\operatorname{sch}$	0.000469
$\operatorname{scl}$	0.000469
sgg	0.000469
sho	0.00115
som	0.000469
soy	0.000469
$\operatorname{stb}$	0.00115
$\operatorname{stf}$	0.00115
swm	0.000469
wfp	0.000366
wto	0.000366

Tab: Ratio of Zero-Flow Days by Land Use: LR-Seg cbp6\_N51041\_JA5\_7480\_0001

	Ratio of Days with Zero Flow to Total Days
aop	0.363
$\operatorname{cch}$	0.349
cci	0.906
$\operatorname{ccn}$	0.305
$\operatorname{cfr}$	0.43
cir	0.906
cmo	0.39
$\operatorname{cnr}$	0.906
ctg	0.349
dbl	0.345
fnp	0.907
for	0.433
fsp	0.907
gom	0.345
gwm	0.345
hfr	0.35
lhy	0.363
mch	0.349
mci	0.906
mcn	0.305
$_{ m mir}$	0.906
mnr	0.906
$\operatorname{mtg}$	0.349
nch	0.349
nci	0.906
$_{ m nir}$	0.906
nnr	0.906
$\operatorname{ntg}$	0.349
oac	0.345
ohy	0.363
osp	0.39
pas	0.363
$\operatorname{sch}$	0.345
$\operatorname{scl}$	0.345
sgg	0.345
sho	0.906
som	0.345
soy	0.345
$\operatorname{stb}$	0.906
$\operatorname{stf}$	0.906
$\operatorname{swm}$	0.345
wfp	0.433
wto	0.433

## Additional Figures: Land-River Segment Flow Boxplots

Fig: Annual SURO Flows for LR-seg cbp6\_N51007\_JA5\_7480\_0001

