

Subbasin : KettleRv_So40

Area : 829.37

Latitude : 49.72

Longitude : -118.71

Downstream : Kettle Nr West Br

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.23
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	16.86
Storage Coefficient	16.86

Baseflow

Method

Linear Reservoir

Baseflow Layer List

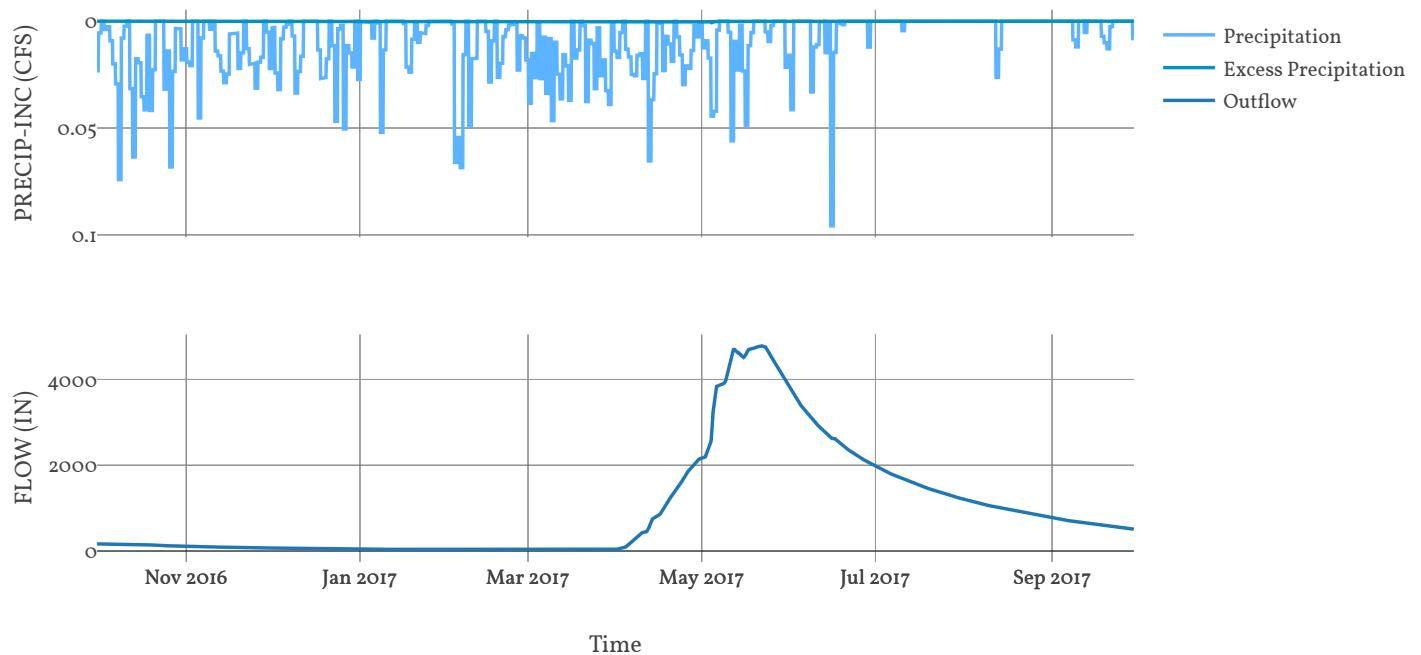
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	337.2
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.2
	Layer Number	2
	Storage Coefficient	1686
	Number Steps	1

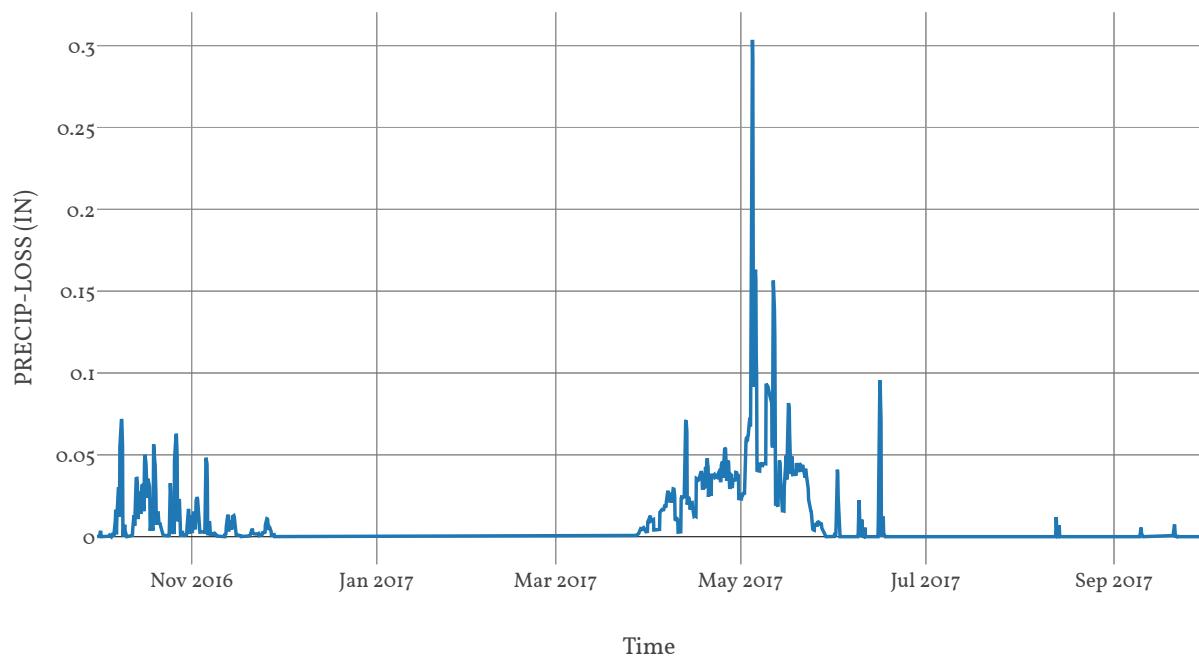
Statistics

Name	Value	Unit
Baseflow Volume	681453.5	Ac-ft
Precipitation Volume	1359124.82	Ac-ft
Loss Volume	1050739.5	Ac-ft
Excess Volume	2422.27	Ac-ft

Precipitation and Outflow



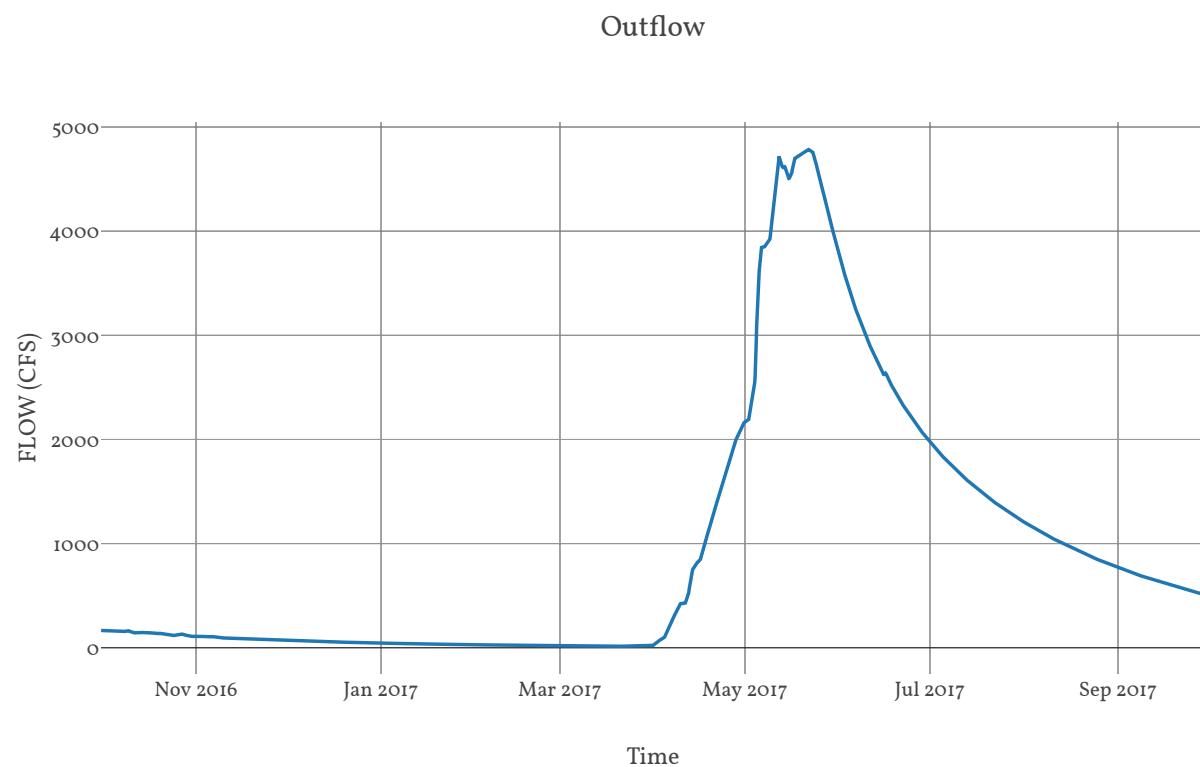
Precipitation Loss



Junction : KettleNrWestBr

Observed Hydrograph : Kettle river near westbridge

Downstream : KettleRv_R035



Reach : KettleRv_Ro35

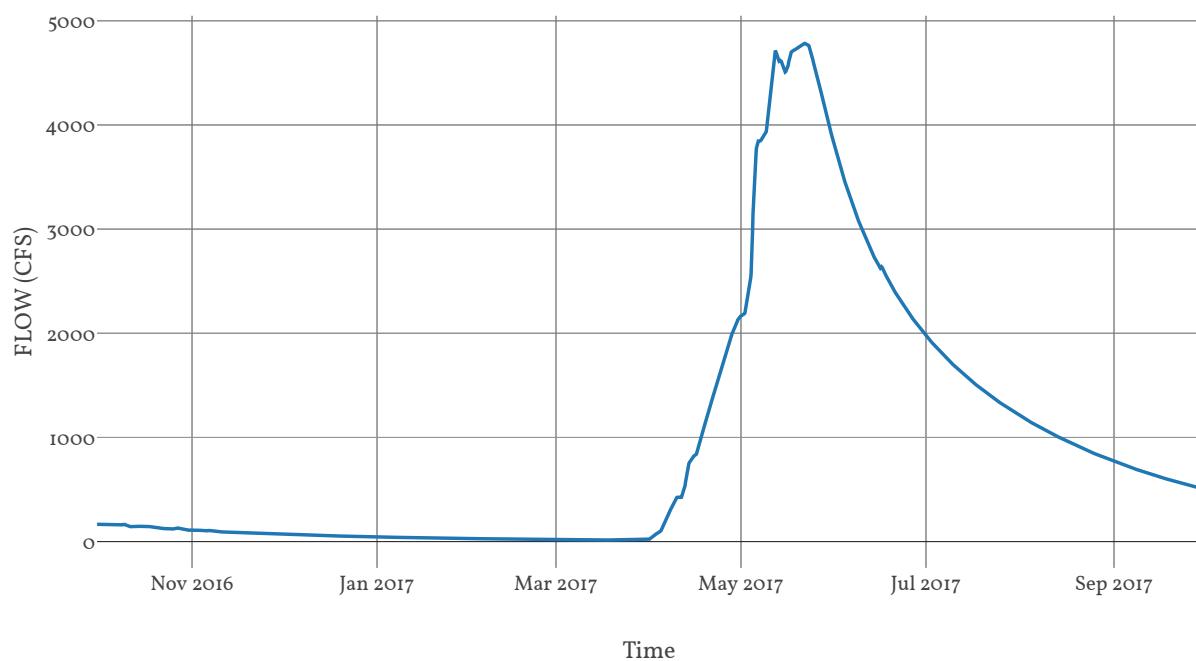
Loss Method : None

Downstream : WKettleRv_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 31978
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name KettleRv_Ro25
	Energy Slope 0
	Right Mannings N 0.15

Outflow



Subbasin : WKettleRv_So10

Area : 732.73

Observed Hydrograph : West kettle river at westbri

Latitude : 49.54

Longitude : -119.1

Downstream : WKettleRv_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.39
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	1

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	1
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	13.29
Storage Coefficient	13.29

Baseflow

Method

Linear Reservoir

Baseflow Layer List

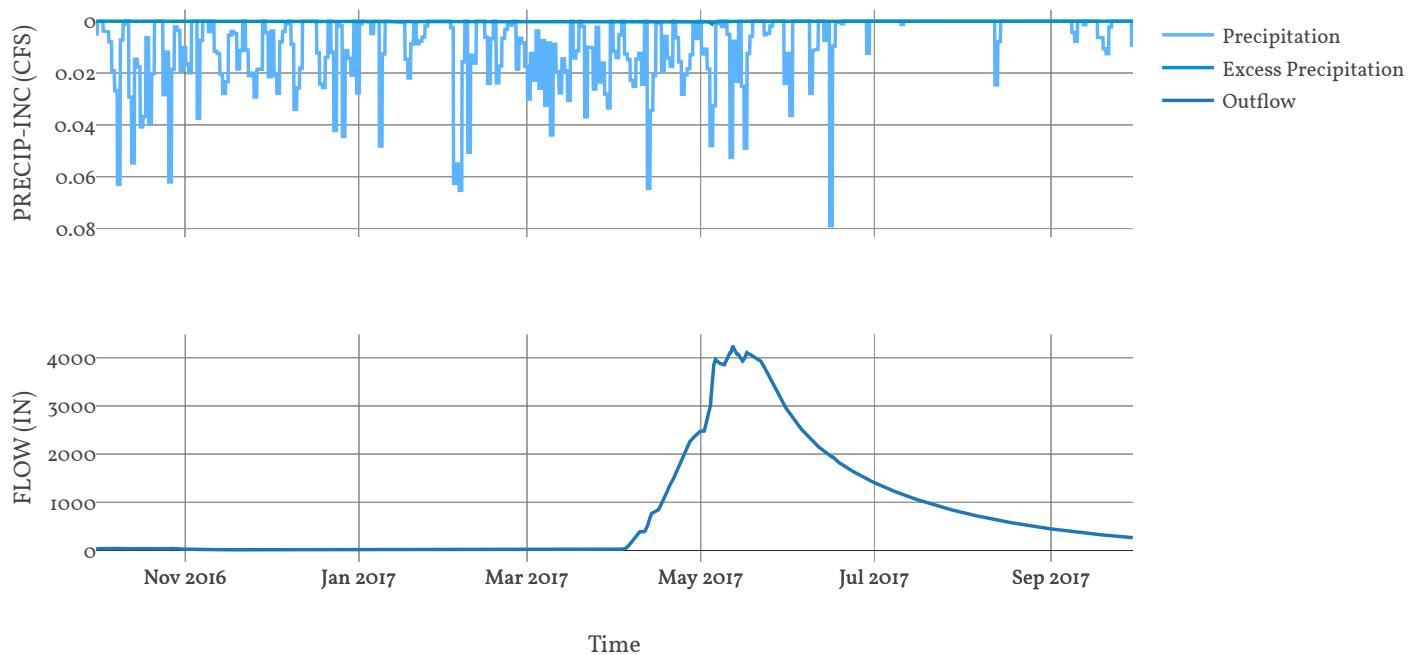
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	265.8
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	1329
	Number Steps	1

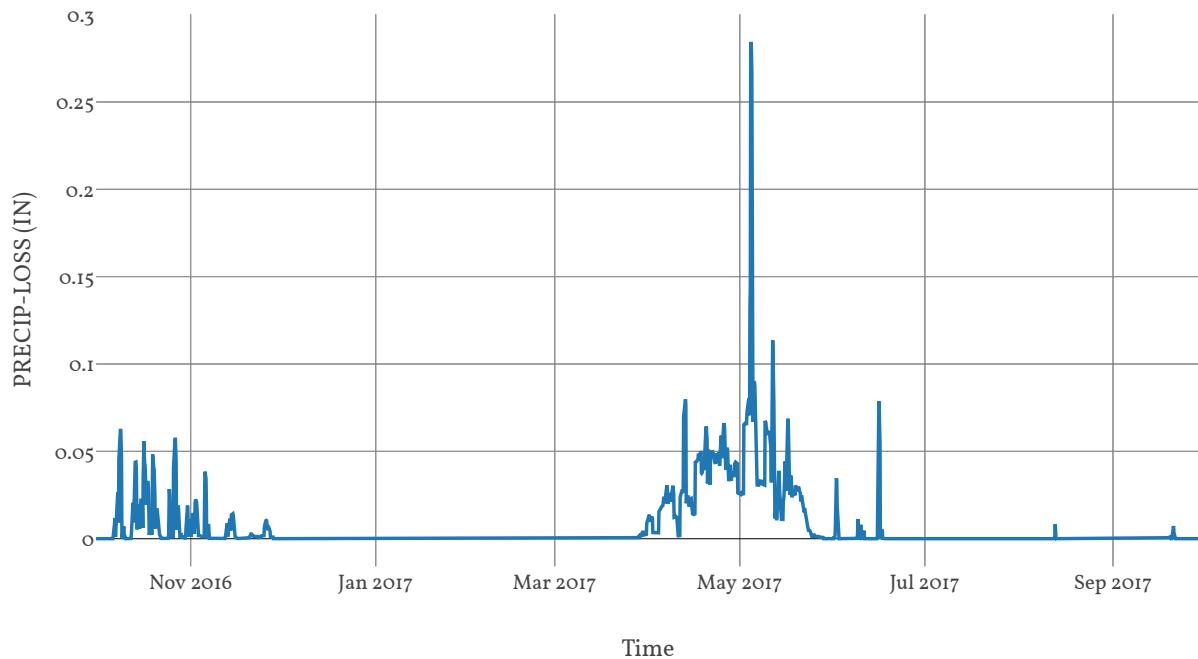
Statistics

Name	Value	Unit
Baseflow Volume	527795.63	Ac-ft
Precipitation Volume	1092018.67	Ac-ft
Loss Volume	826102.52	Ac-ft
Excess Volume	3234.41	Ac-ft

Precipitation and Outflow

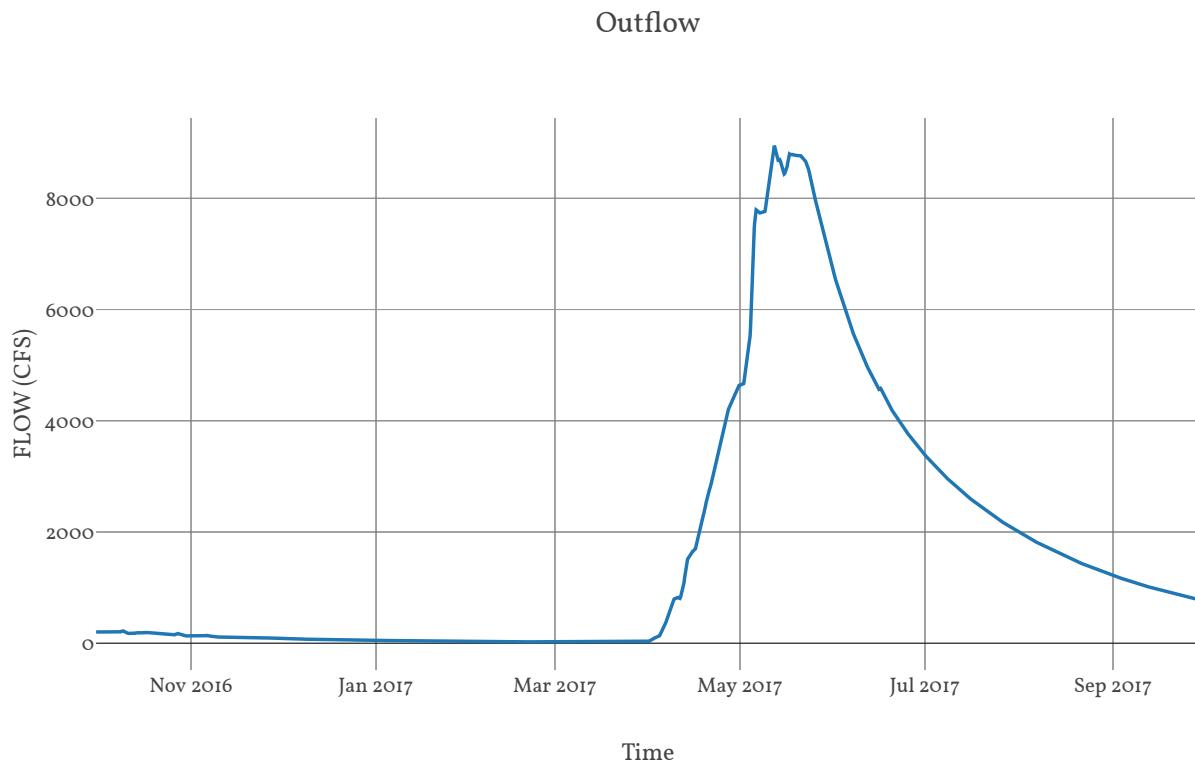


Precipitation Loss



Junction : WKettleRv_CF

Downstream : KettleRv_R030



Reach : KettleRv_Ro30

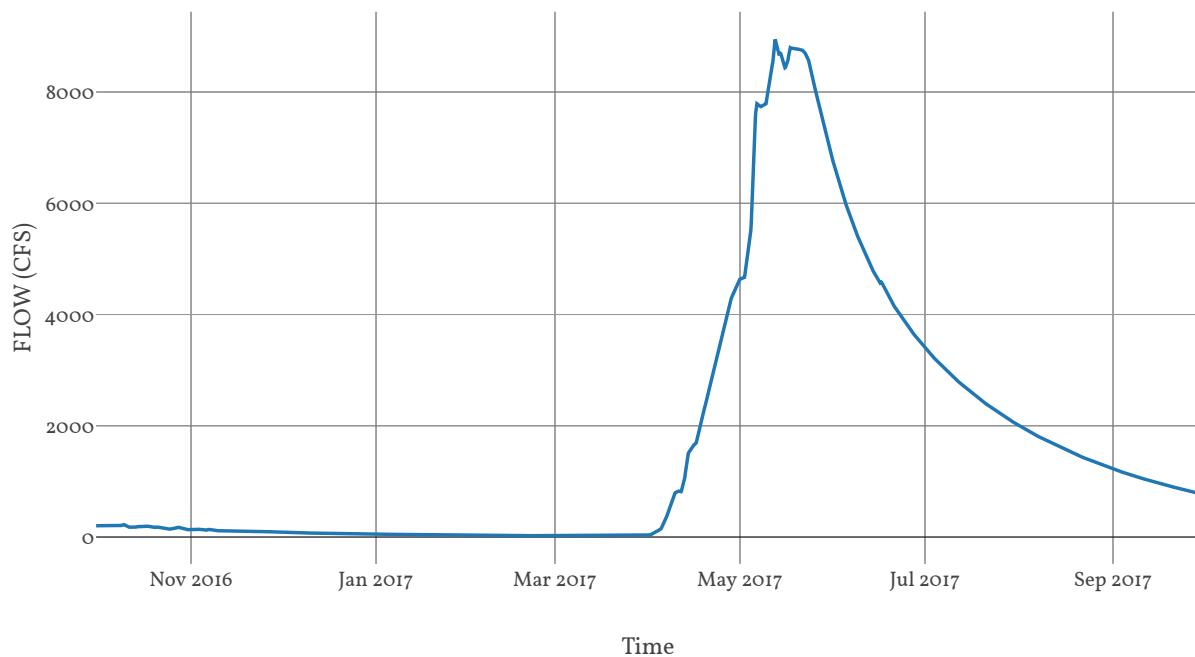
Loss Method : None

Downstream : Kettle Nr Ferry

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 139454
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name KettleRv_Ro30
	Energy Slope 0
	Right Mannings N 0.15

Outflow



Subbasin : KettleRv_So30

Area : 625.53

Latitude : 49.1

Longitude : -118.9

Downstream : Kettle Nr Ferry

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.25
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	9.21
Storage Coefficient	9.21

Baseflow

Method

Linear Reservoir

Baseflow Layer List

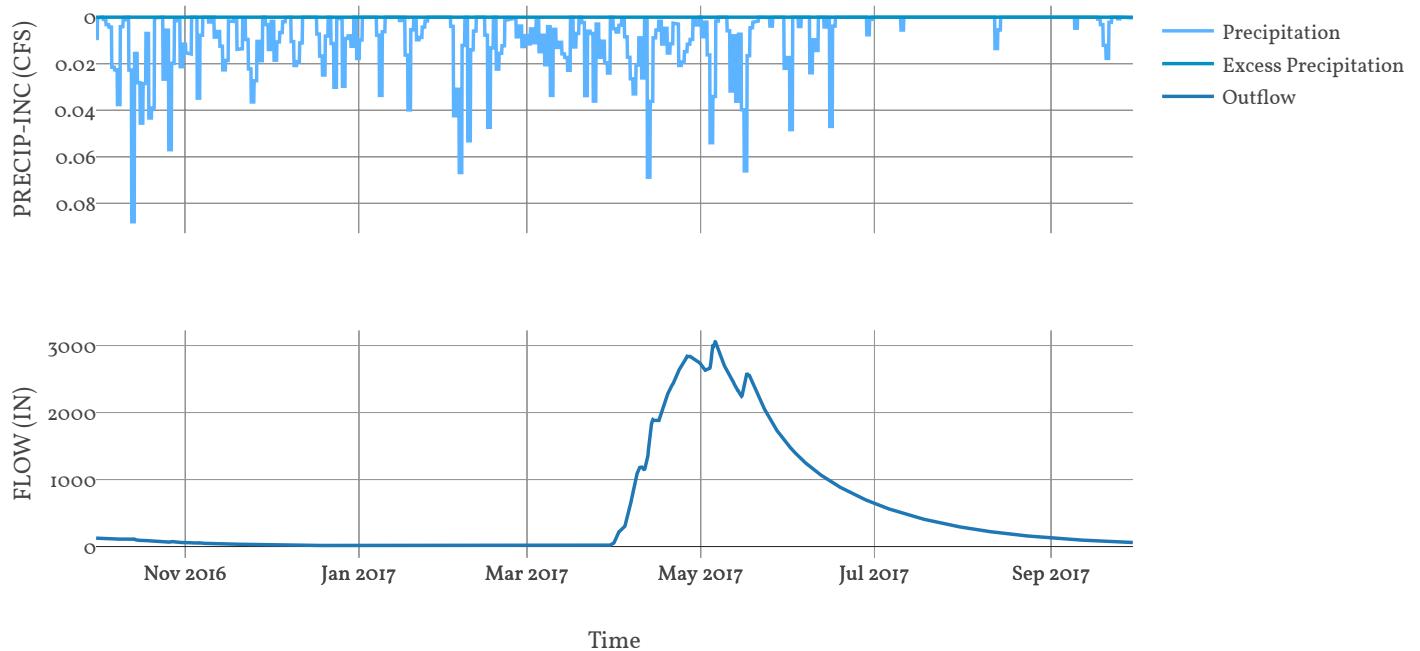
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	184.2
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.2
	Layer Number	2
	Storage Coefficient	921
	Number Steps	1

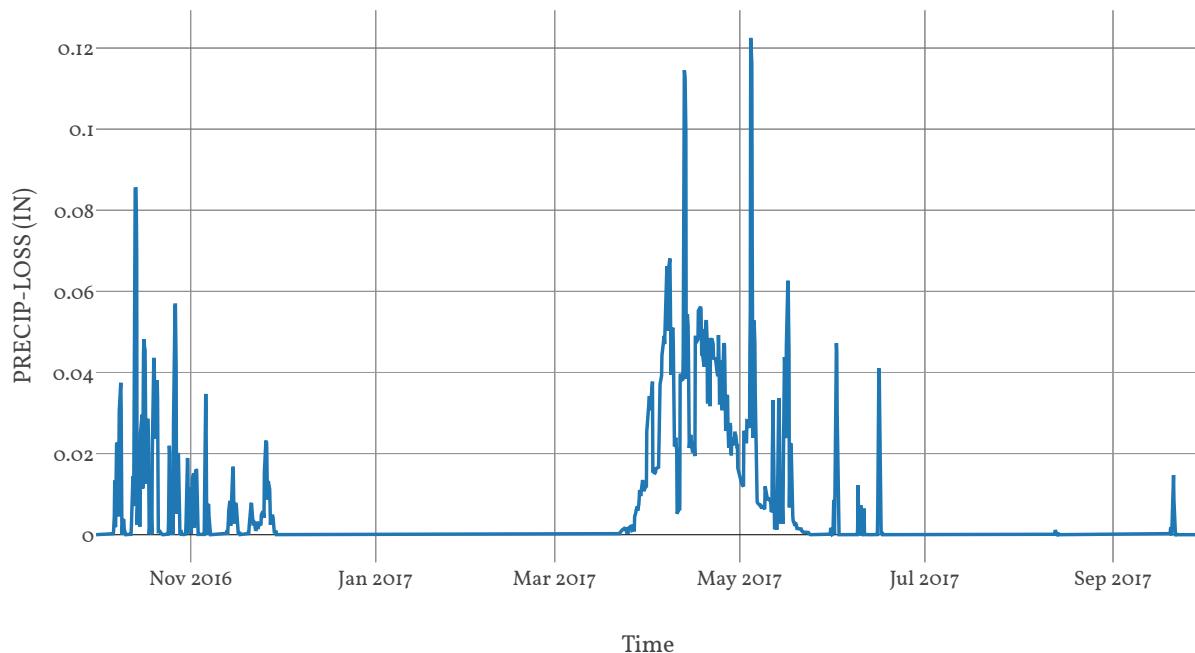
Statistics

Name	Value	Unit
Baseflow Volume	358884.29	Ac-ft
Precipitation Volume	821509.23	Ac-ft
Loss Volume	591352.26	Ac-ft
Excess Volume	1482.09	Ac-ft

Precipitation and Outflow



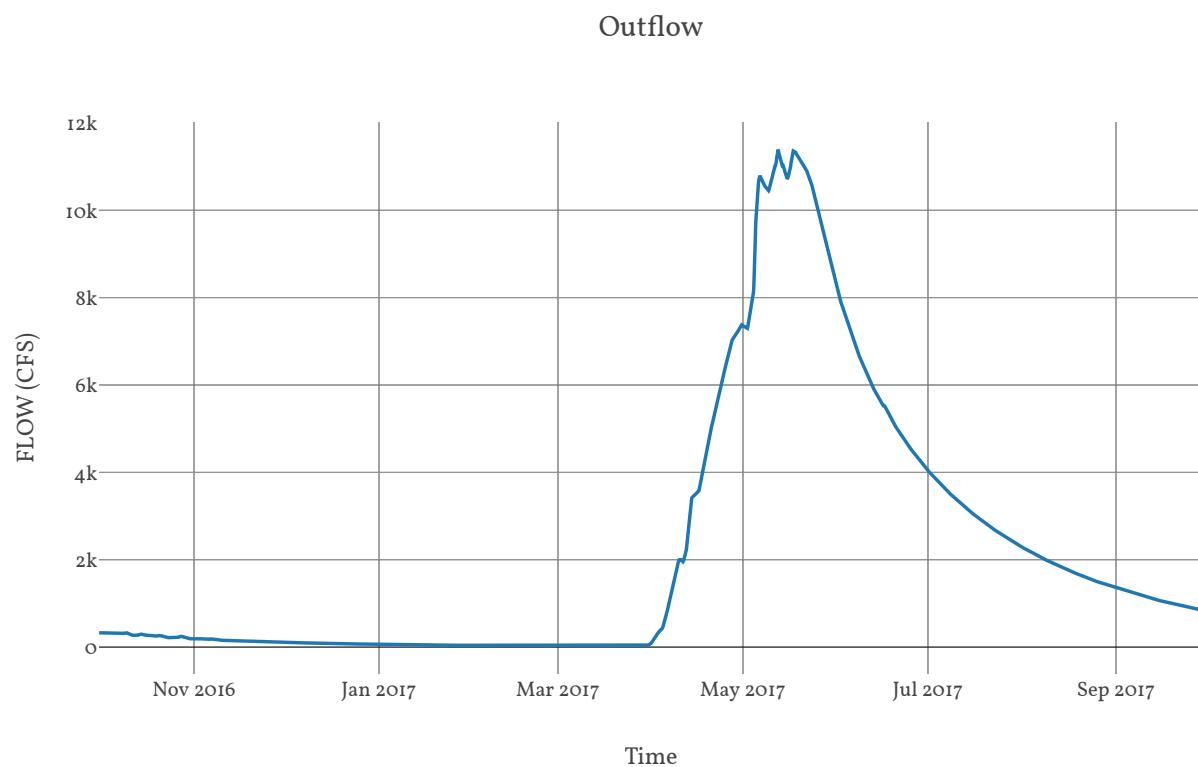
Precipitation Loss



Junction : KettleNrFerry

Observed Hydrograph : Kettle river near ferry

Downstream : KettleRv_R025



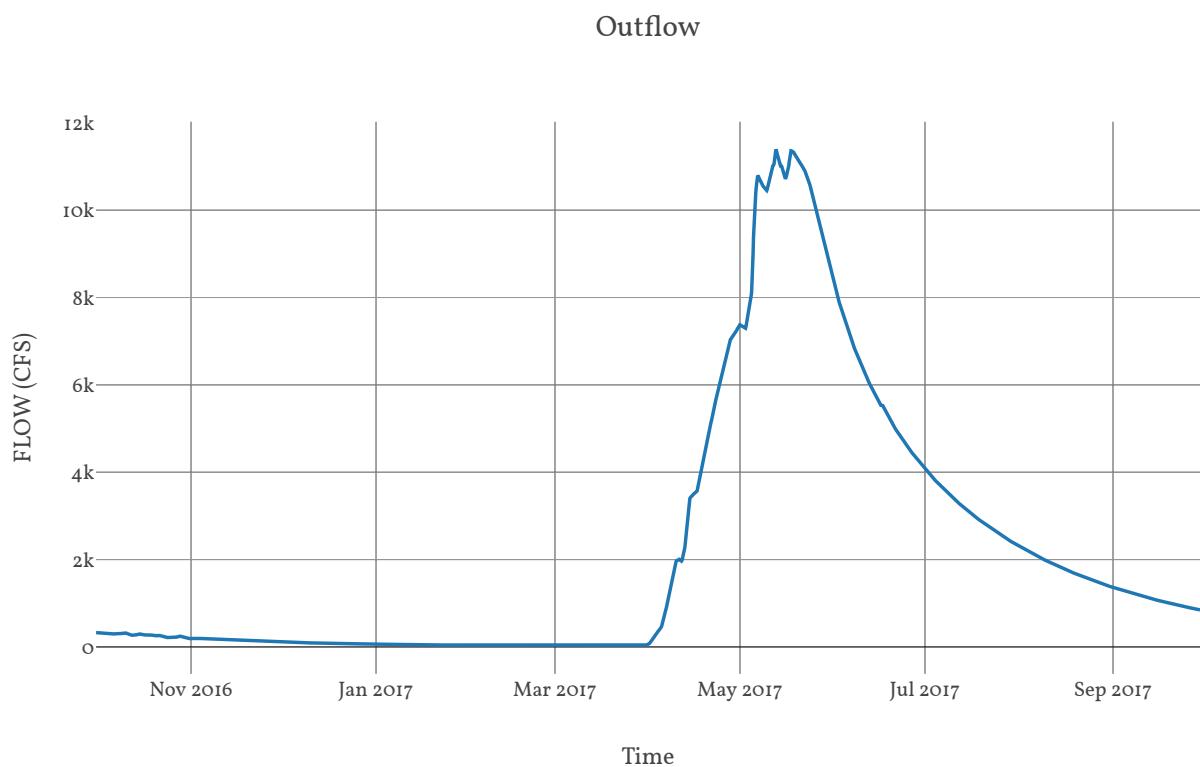
Reach : KettleRv_Ro25

Loss Method : None

Downstream : GranbyRv_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	I
	Length
	172918
	Max Depth Difference
	0
	Left Mannings N
	0.15



Subbasin : GranbyRv_So10

Area : 796.08

Observed Hydrograph : Granby river at grand forks

Latitude : 49.46

Longitude : -118.45

Downstream : GranbyRv_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.07
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	14.13
Storage Coefficient	14.13

Baseflow

Method

Linear Reservoir

Baseflow Layer List

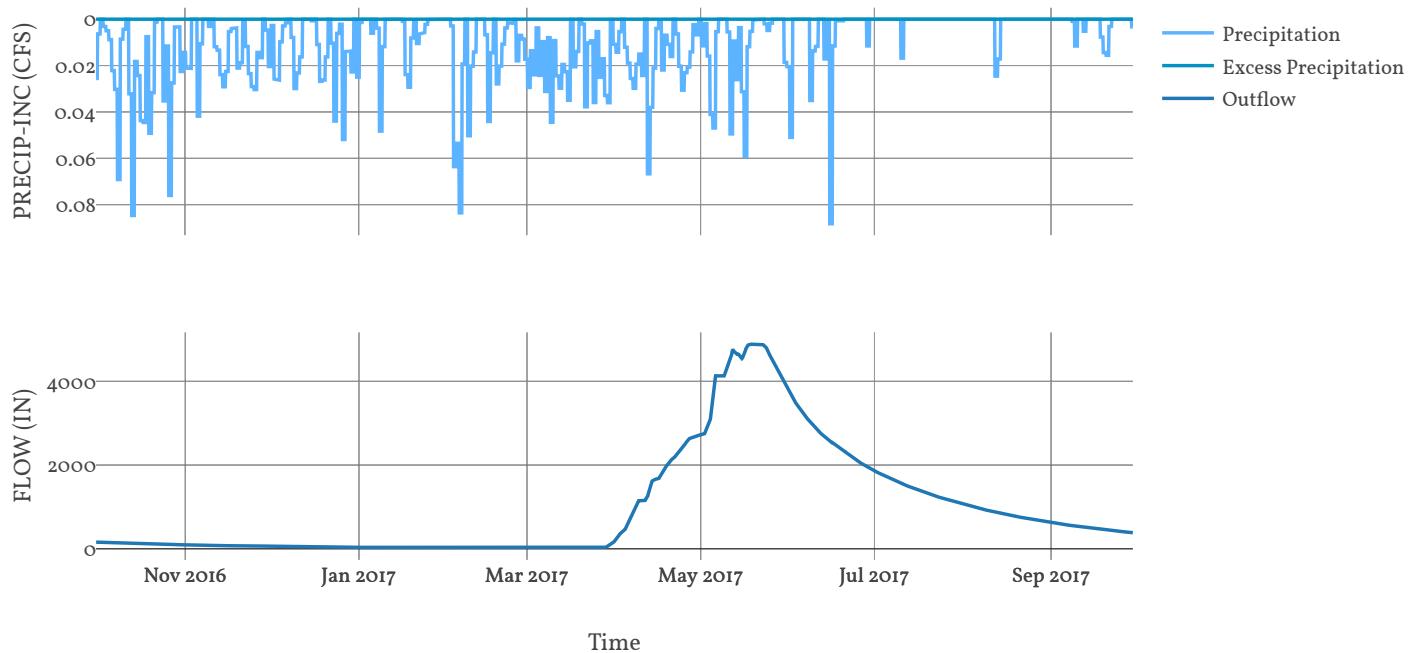
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	282.6
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.2
	Layer Number	2
	Storage Coefficient	1413
	Number Steps	1

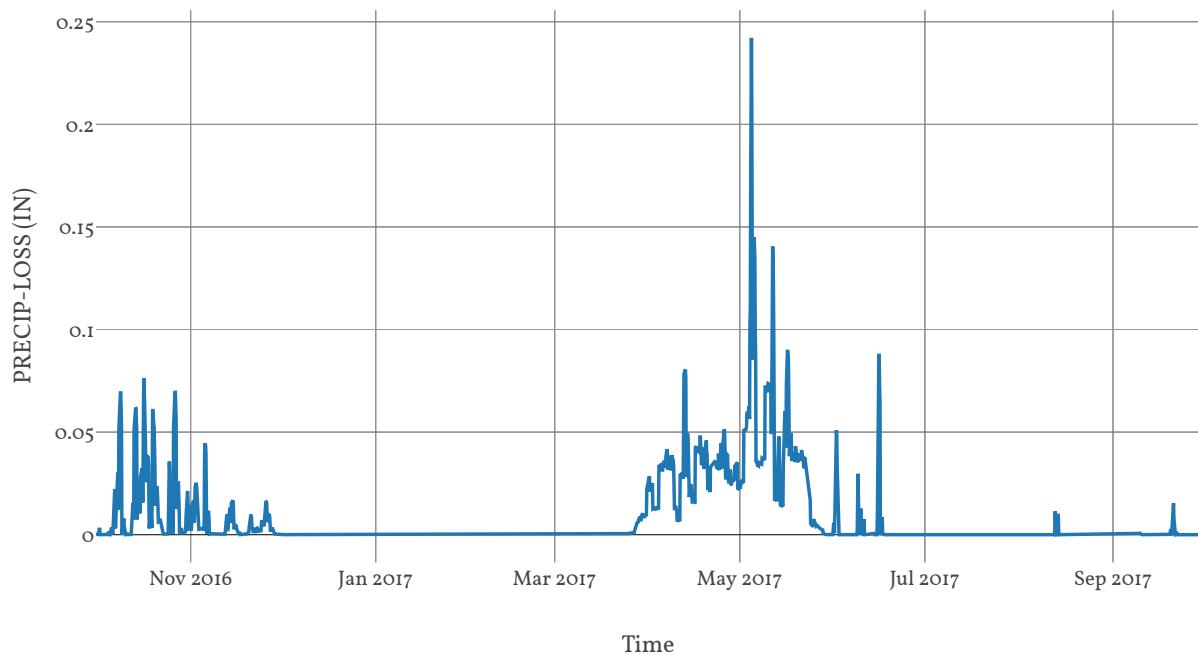
Statistics

Name	Value	Unit
Baseflow Volume	700329.77	Ac-ft
Precipitation Volume	1347783.59	Ac-ft
Loss Volume	1041318.67	Ac-ft
Excess Volume	729.43	Ac-ft

Precipitation and Outflow

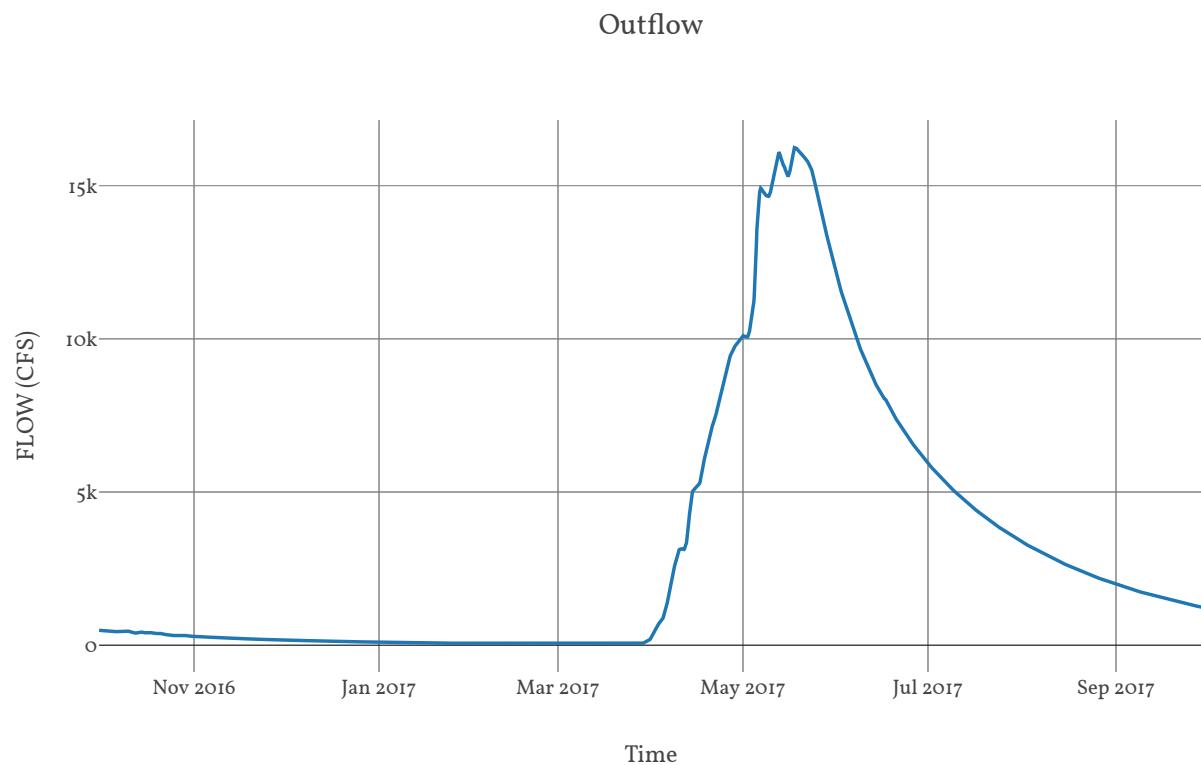


Precipitation Loss



Junction : GranbyRv_CF

Downstream : KettleRv_R020



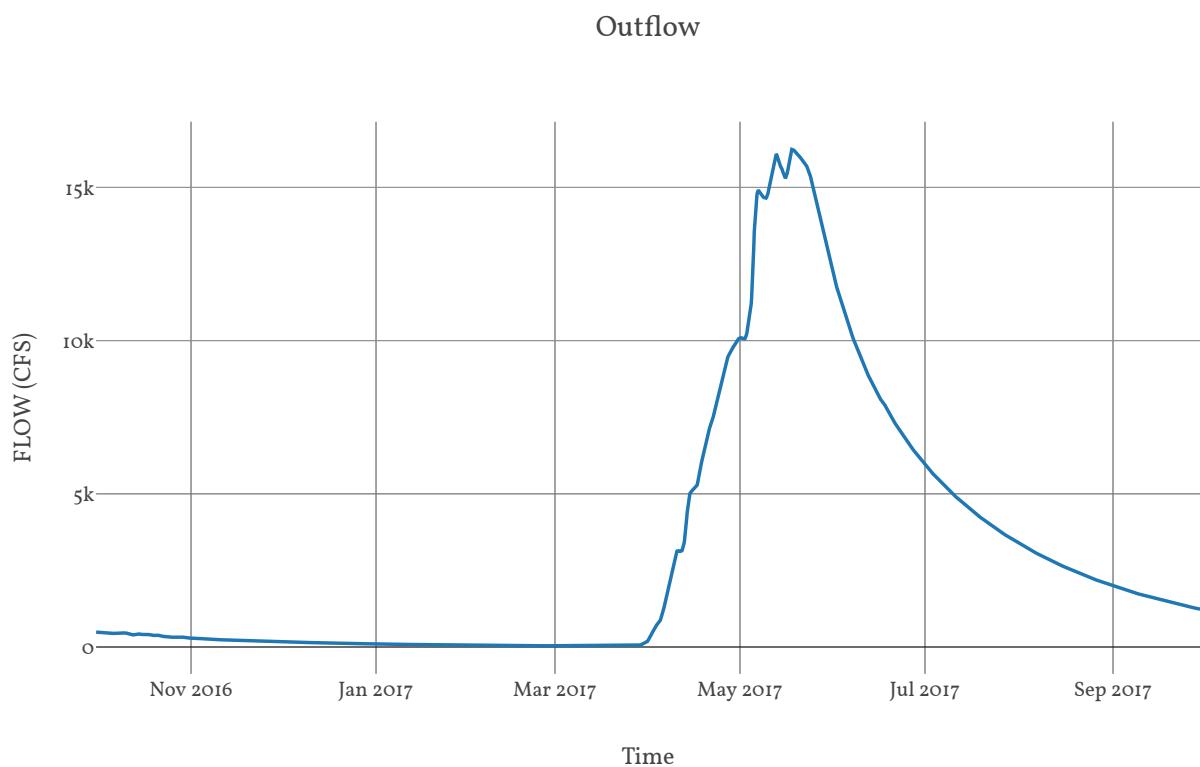
Reach : KettleRv_Ro20

Loss Method : None

Downstream : Kettle Nr Laurier

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	I
	Length
	113985
	Max Depth Difference
	0
	Left Mannings N
	0.15
	Channel Type
	Eight Point
	Mannings N
	0.04
	Cross Section Name
	KettleRv_Ro20
	Energy Slope
	0
	Right Mannings N
	0.15



Subbasin : ChristinaLk_SoI0

Area : 201.66

Latitude : 49.15

Longitude : -118.2

Downstream : ChristinaLk_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	4.94
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.49
Storage Coefficient	5.49

Baseflow

Method

Linear Reservoir

Baseflow Layer List

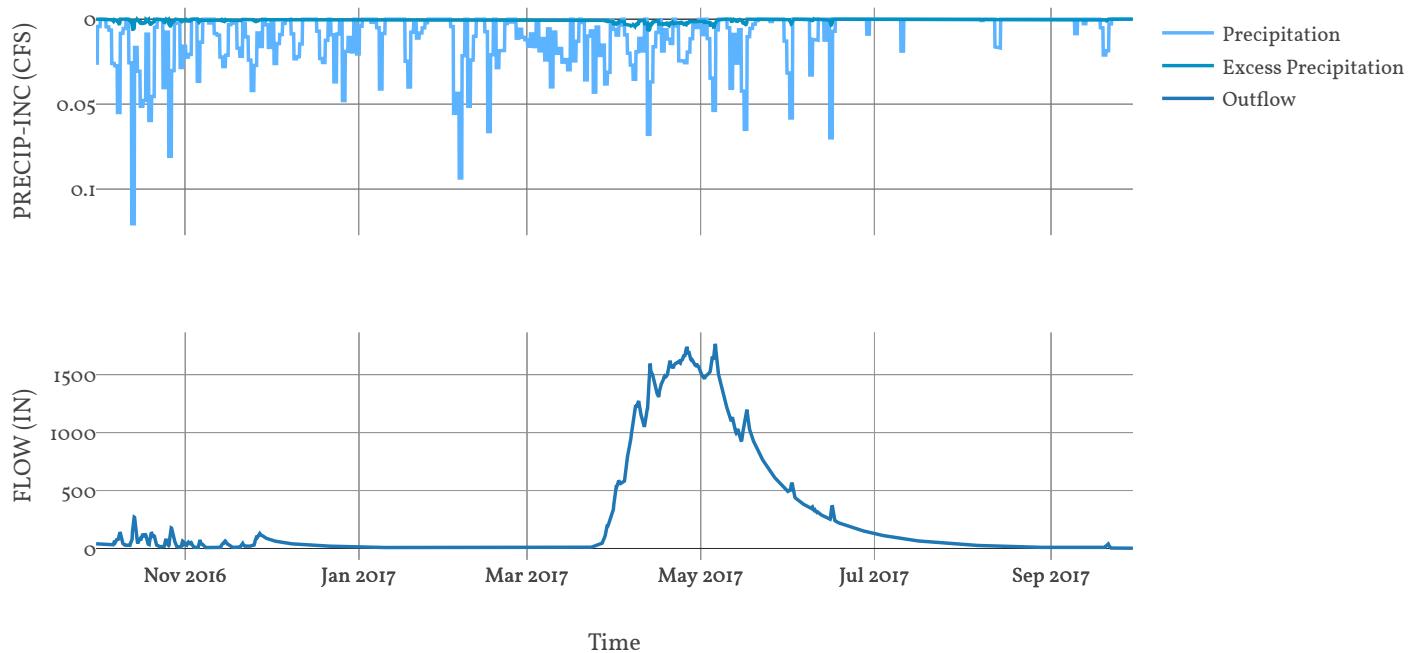
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	109.8
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.2
	Layer Number	2
	Storage Coefficient	549
	Number Steps	1

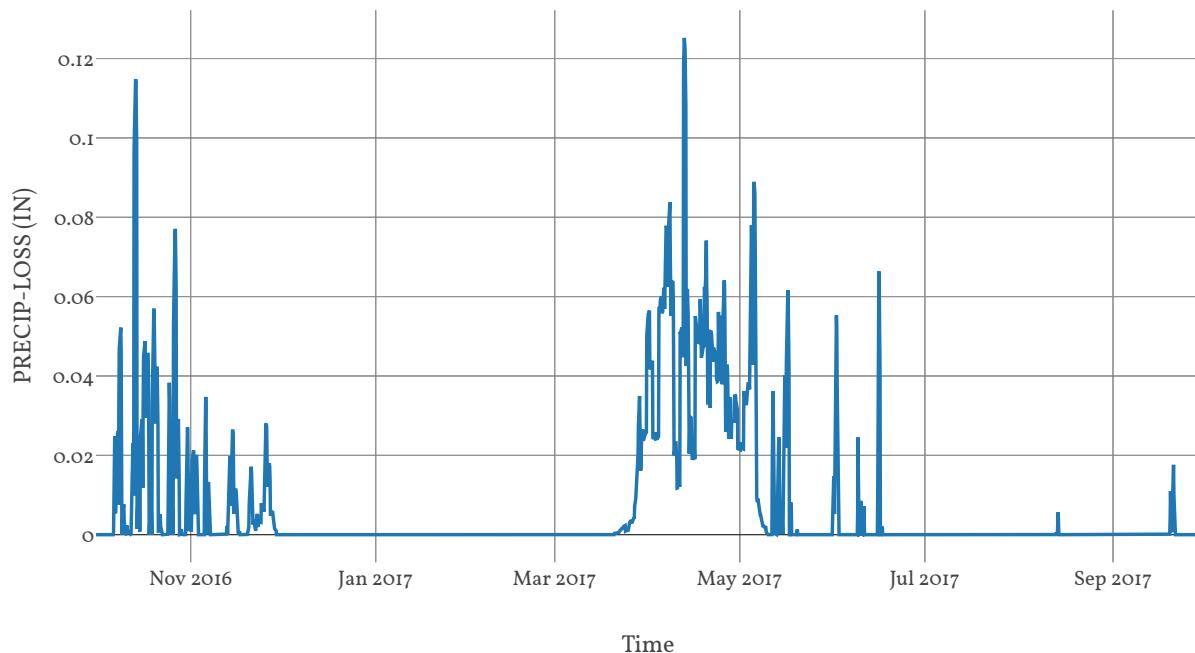
Statistics

Name	Value	Unit
Baseflow Volume	161258.34	Ac-ft
Precipitation Volume	331322.4	Ac-ft
Loss Volume	235639.74	Ac-ft
Excess Volume	12245.53	Ac-ft

Precipitation and Outflow

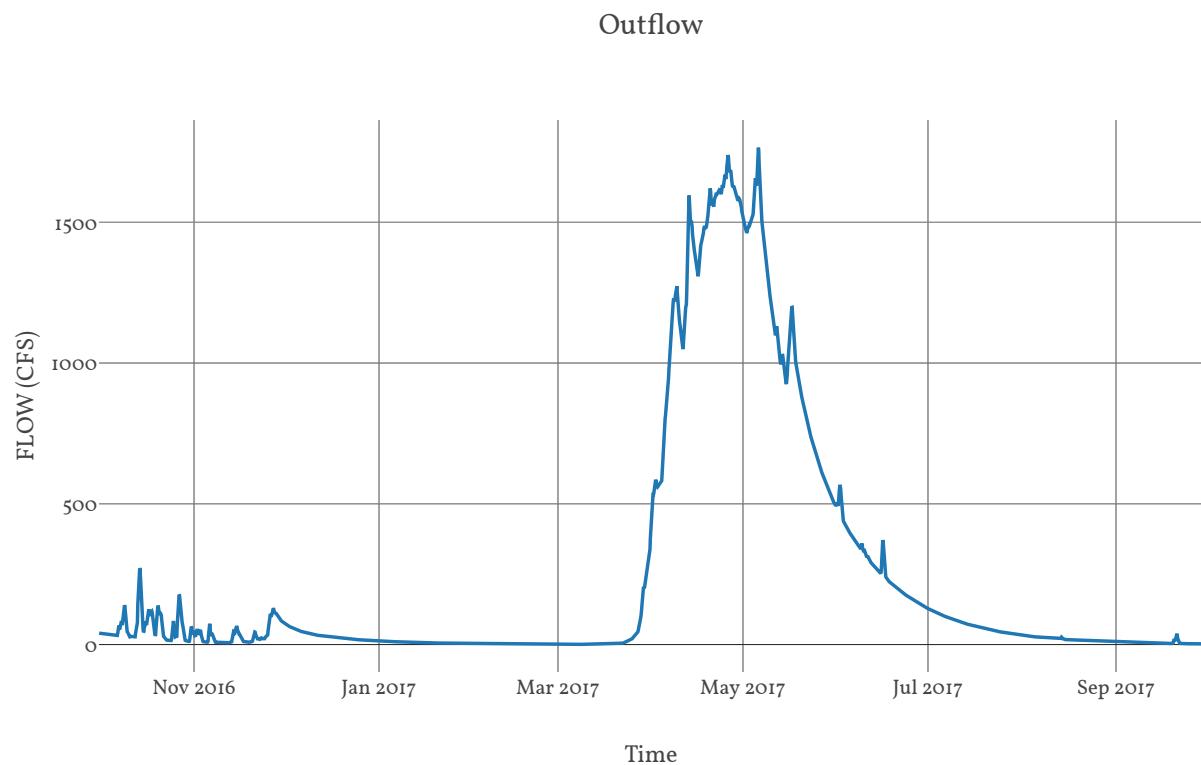


Precipitation Loss



Junction : ChristinaLk_IN

Downstream : Christina Lk



Subbasin : BigSheepCk_So10

Area : 140.26

Latitude : 49.15

Longitude : -117.98

Downstream : Big Sheep Ck

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.13
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	1

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	1
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.83
Storage Coefficient	5.83

Baseflow

Method

Linear Reservoir

Baseflow Layer List

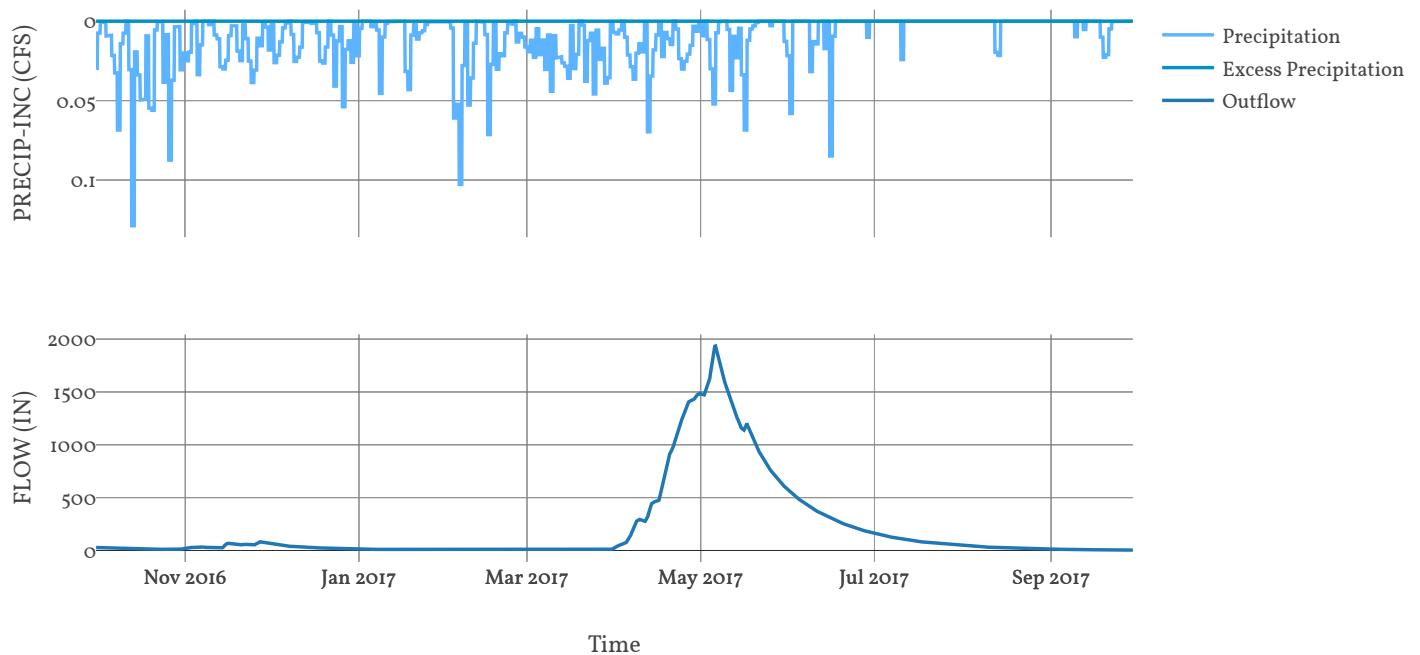
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	116.6
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.2
	Layer Number	2
	Storage Coefficient	583
	Number Steps	1

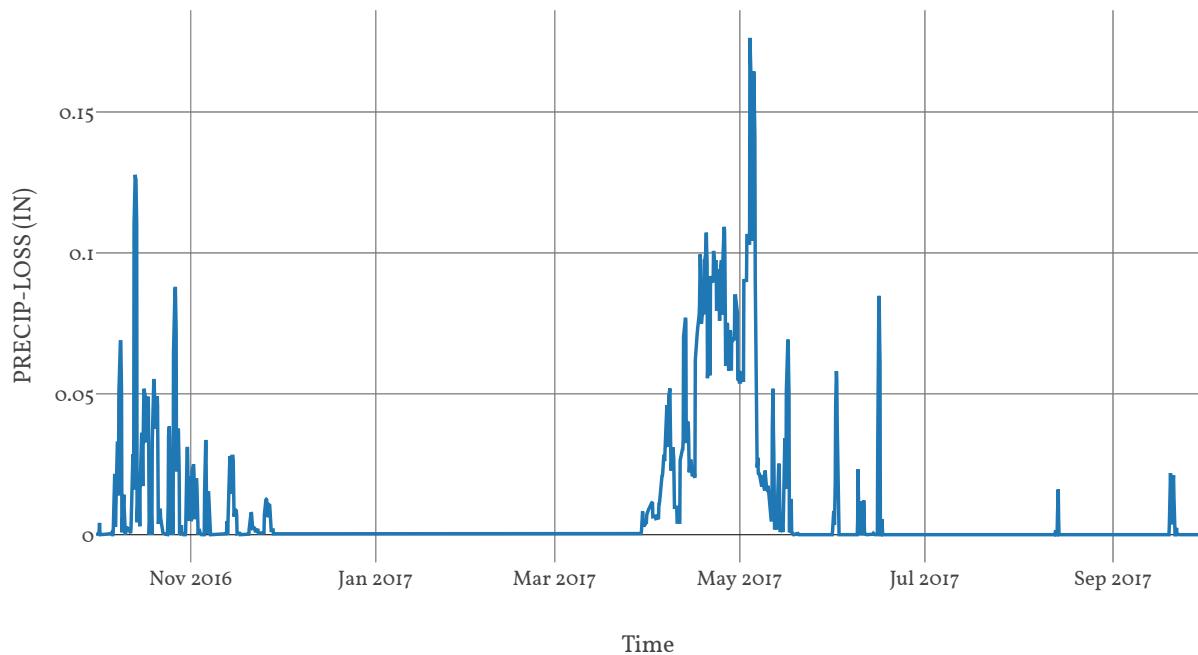
Statistics

Name	Value	Unit
Baseflow Volume	145091.66	Ac-ft
Precipitation Volume	256385.14	Ac-ft
Loss Volume	200182.23	Ac-ft
Excess Volume	260.58	Ac-ft

Precipitation and Outflow



Precipitation Loss



Reach : MidColumbia_RII5

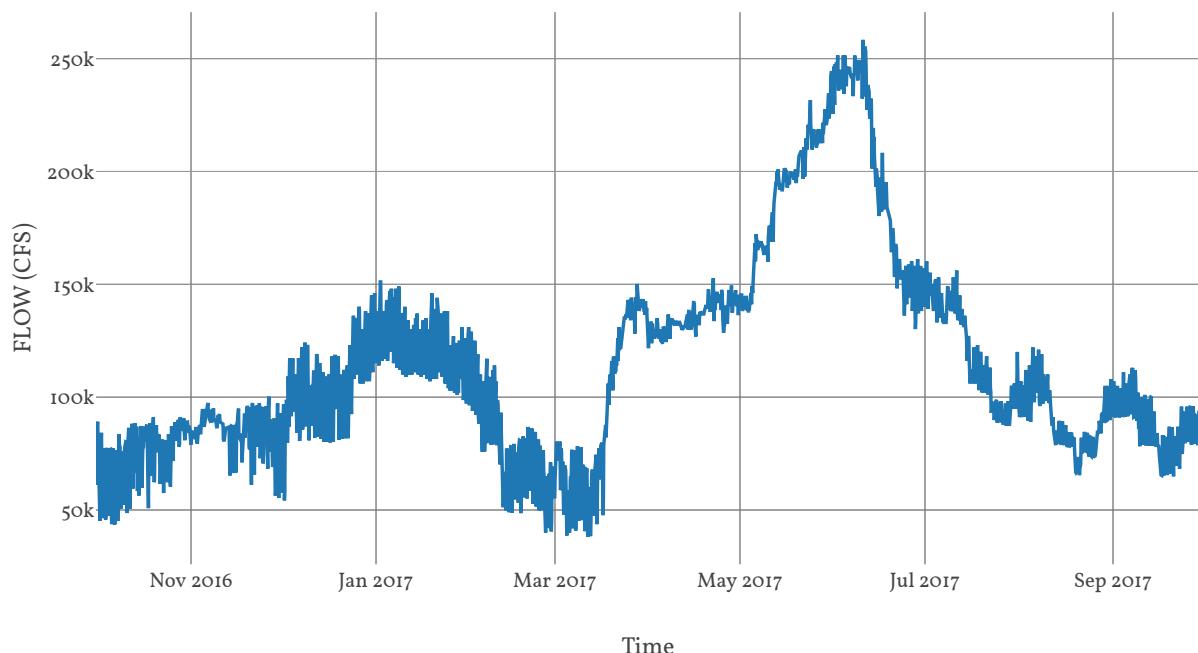
Loss Method : None

Downstream : BigSheepCk_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

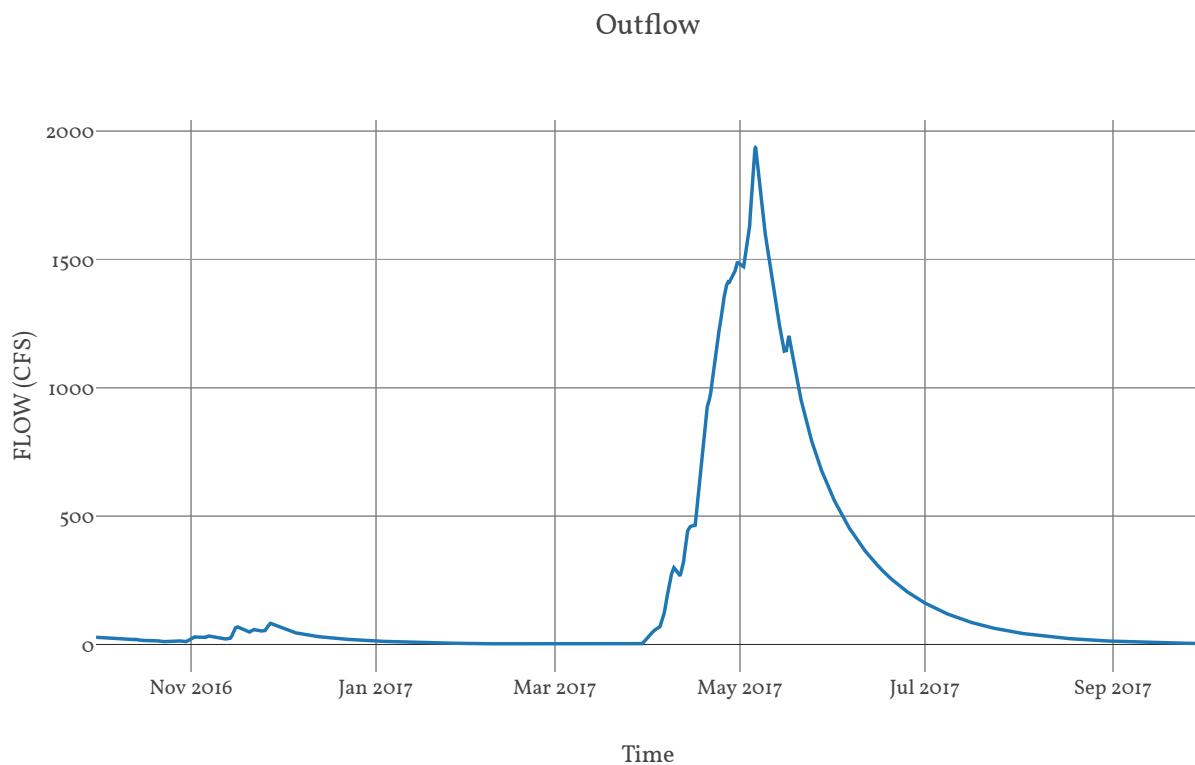
Outflow



Junction : BigSheepCk

Observed Hydrograph : Big sheep creek near rosslan

Downstream : BigSheepCk_CF



Reach : MidColumbia_RI20

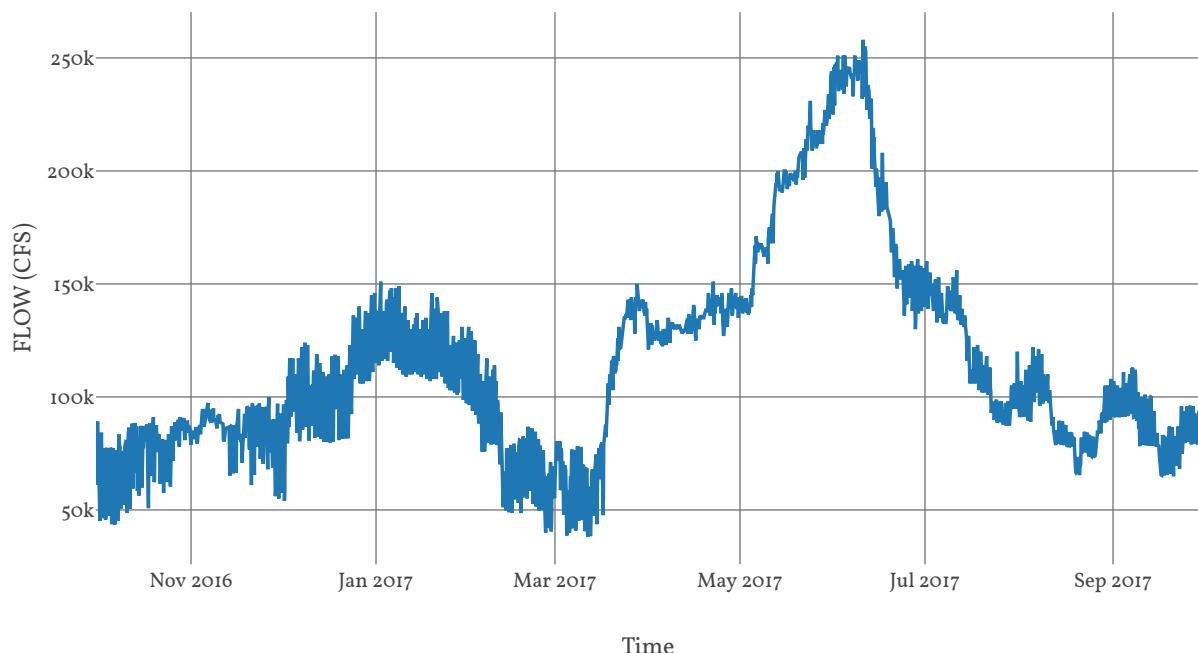
Loss Method : None

Downstream : ColumbiaRv_IntlB

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

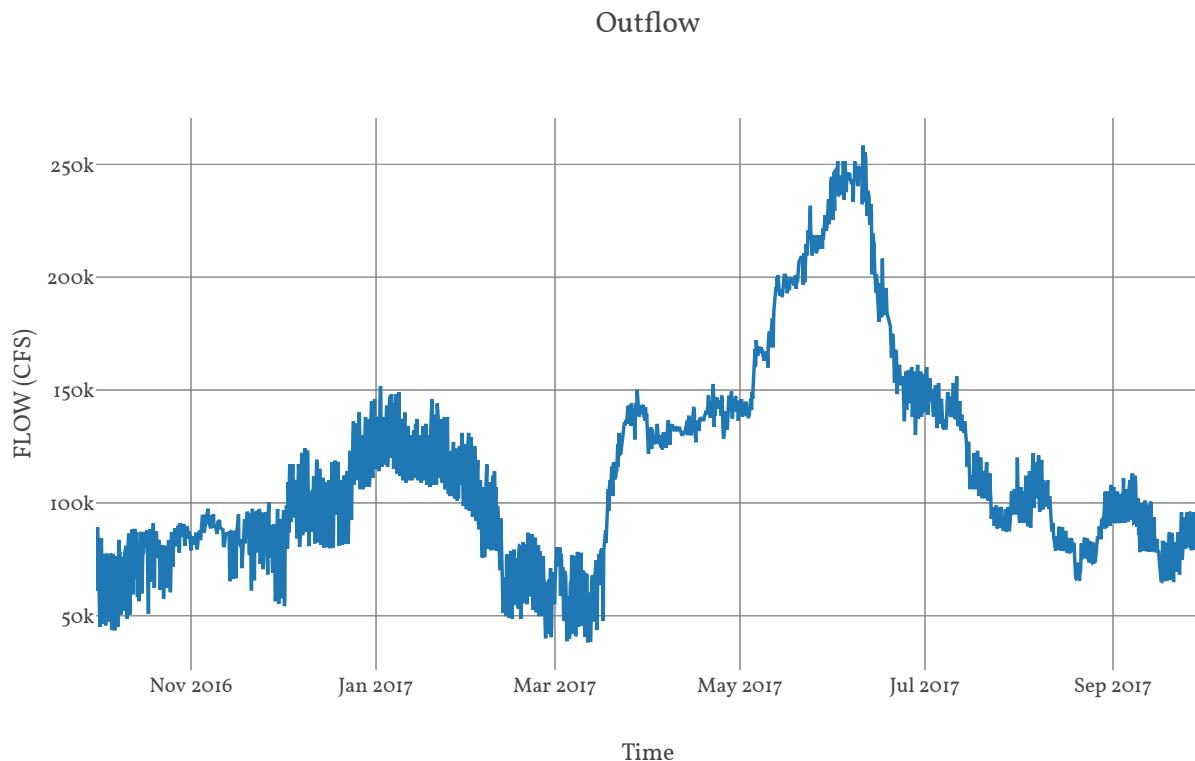
Outflow



Junction : ColumbiaRv_IntlB

Observed Hydrograph : Columbia river at intl bound

Downstream : MidColumbia_RI15



Subbasin : MidColumbia_SI20

Area : 208.51

Latitude : 49.13

Longitude : -117.6

Downstream : ColumbiaRv_IntlB

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.11
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	6.38
Storage Coefficient	6.38

Baseflow

Method

Linear Reservoir

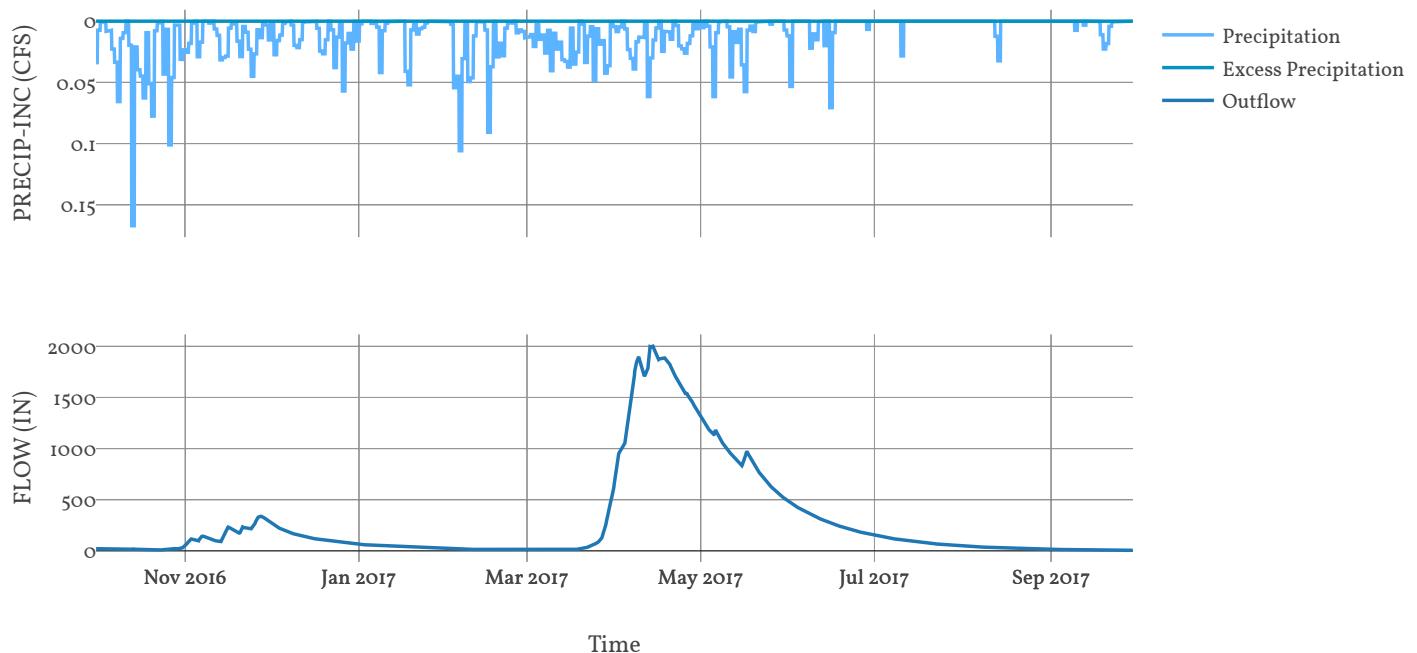
Baseflow Layer List

I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	127.6
	Number Steps	1
2	Baseflow Fraction	0.8
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	638
	Number Steps	1

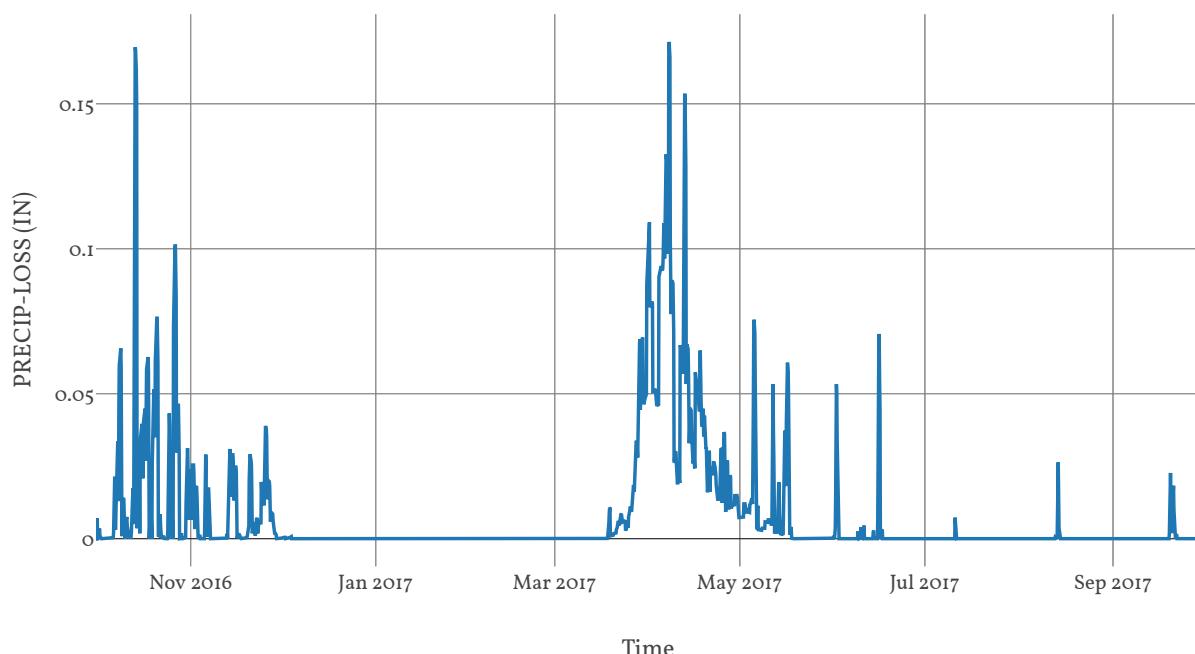
Statistics

Name	Value	Unit
Baseflow Volume	200529.63	Ac-ft
Precipitation Volume	375203.24	Ac-ft
Loss Volume	282163.18	Ac-ft
Excess Volume	310.72	Ac-ft

Precipitation and Outflow



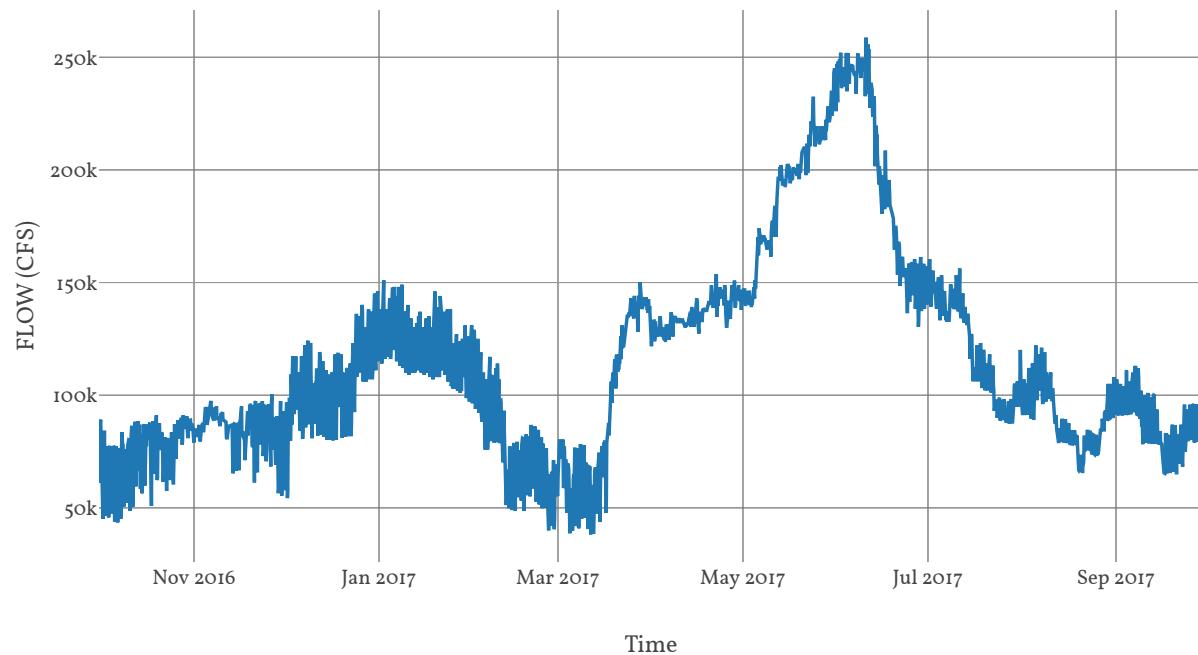
Precipitation Loss



Junction : BigSheepCk_CF

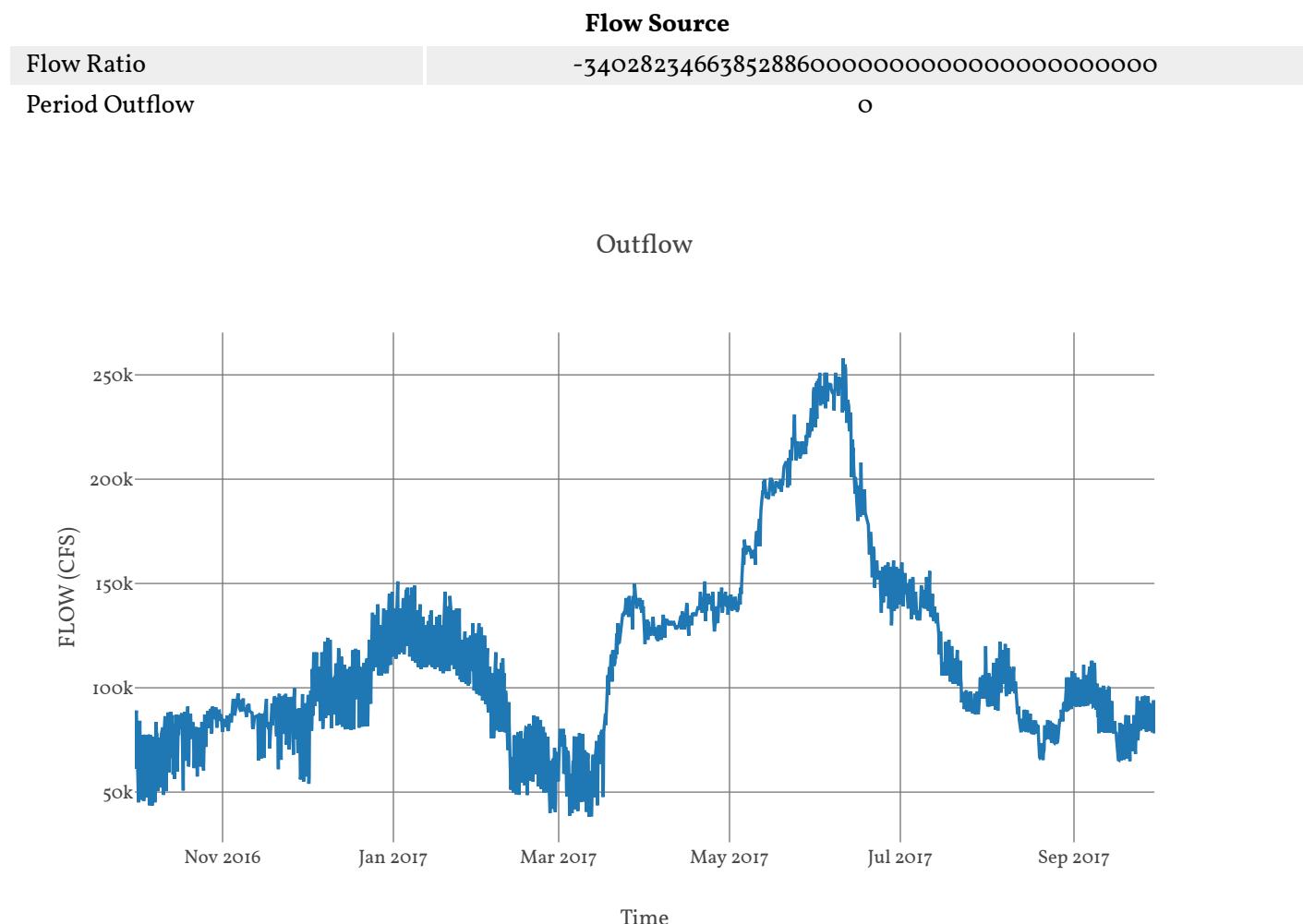
Downstream : MidColumbia_RIIO

Outflow



Source : FromUpperColumbia

Downstream : MidColumbia_R120



Reach : MidColumbia_RIIO

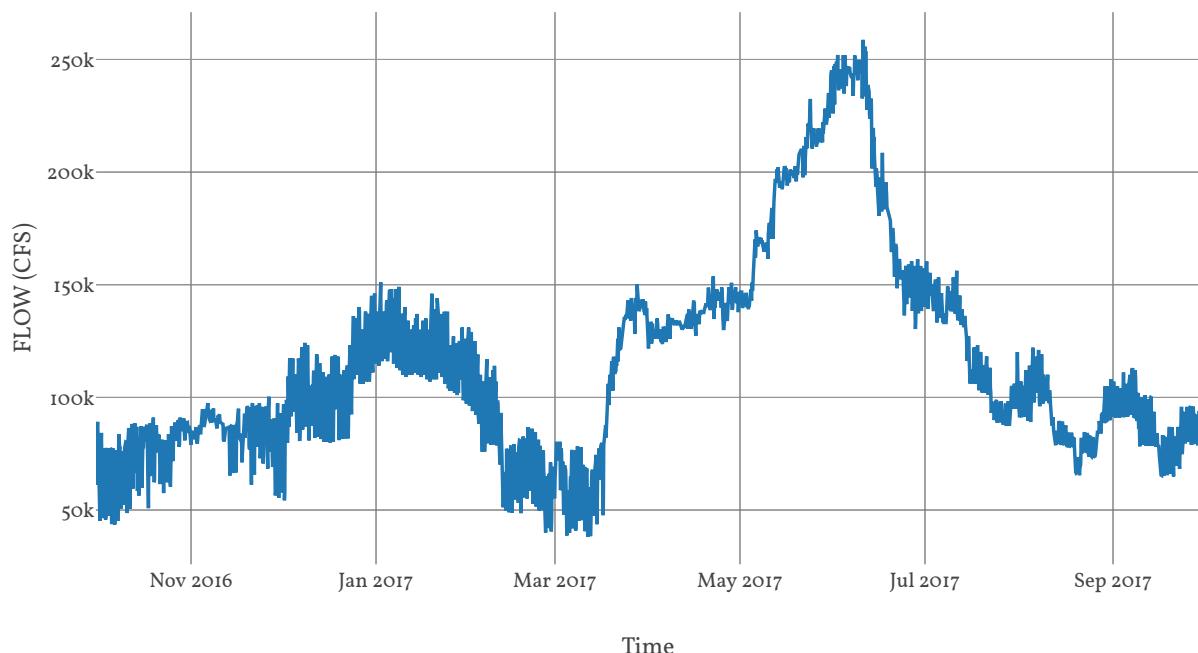
Loss Method : None

Downstream : KettleRv_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



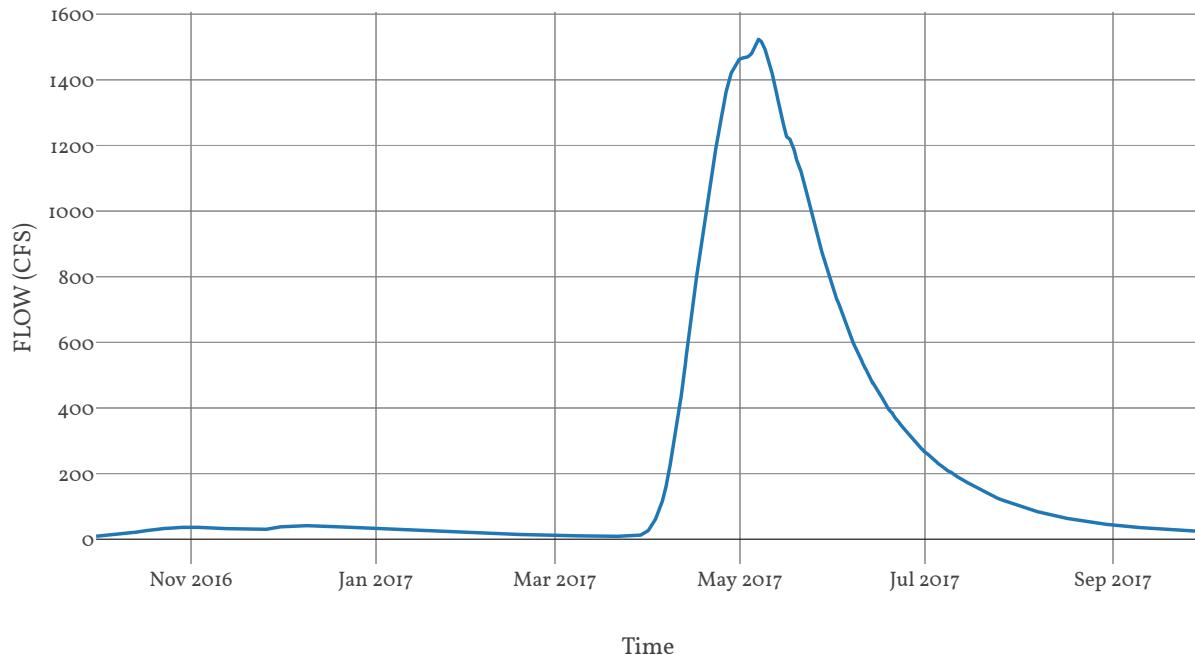
Reservoir : ChristinaLk

Quality Method : Unspecified

Method : Modified Puls

Downstream : ChristinaLk_OUT

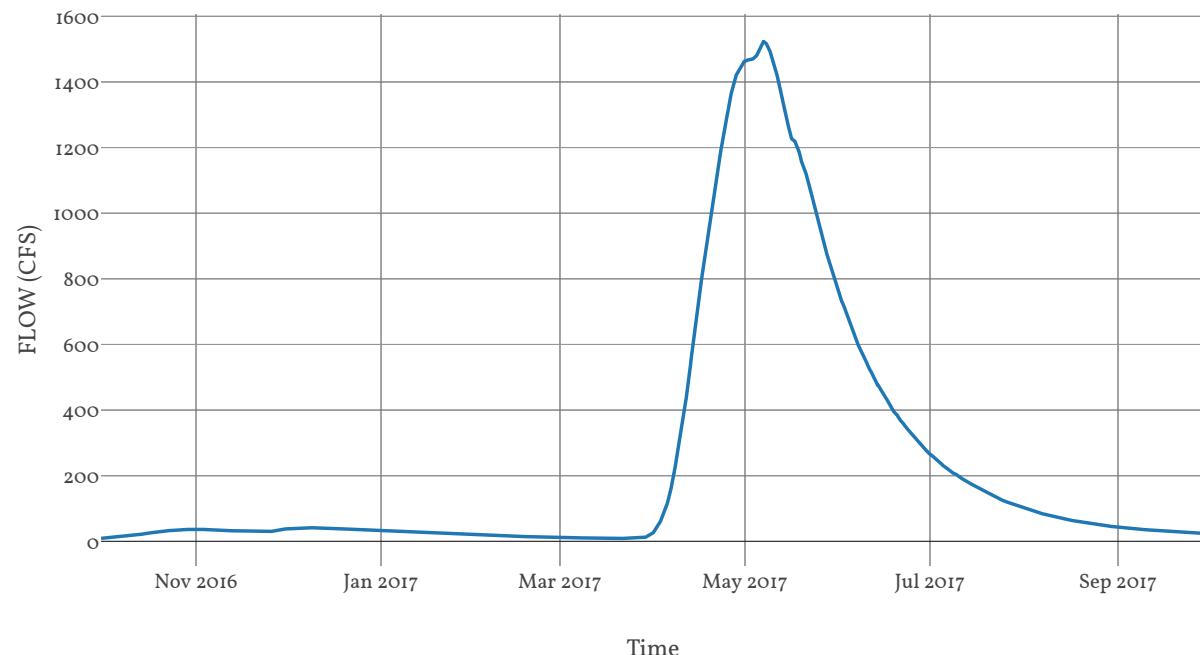
Outflow



Junction : ChristinaLk_OUT

Downstream : Kettle Nr Laurier

Outflow



Subbasin : KettleRv_So20

Area : 652.33

Latitude : 48.88

Longitude : -118.63

Downstream : Kettle Nr Laurier

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.36
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	16.08
Storage Coefficient	16.08

Baseflow

Method

Linear Reservoir

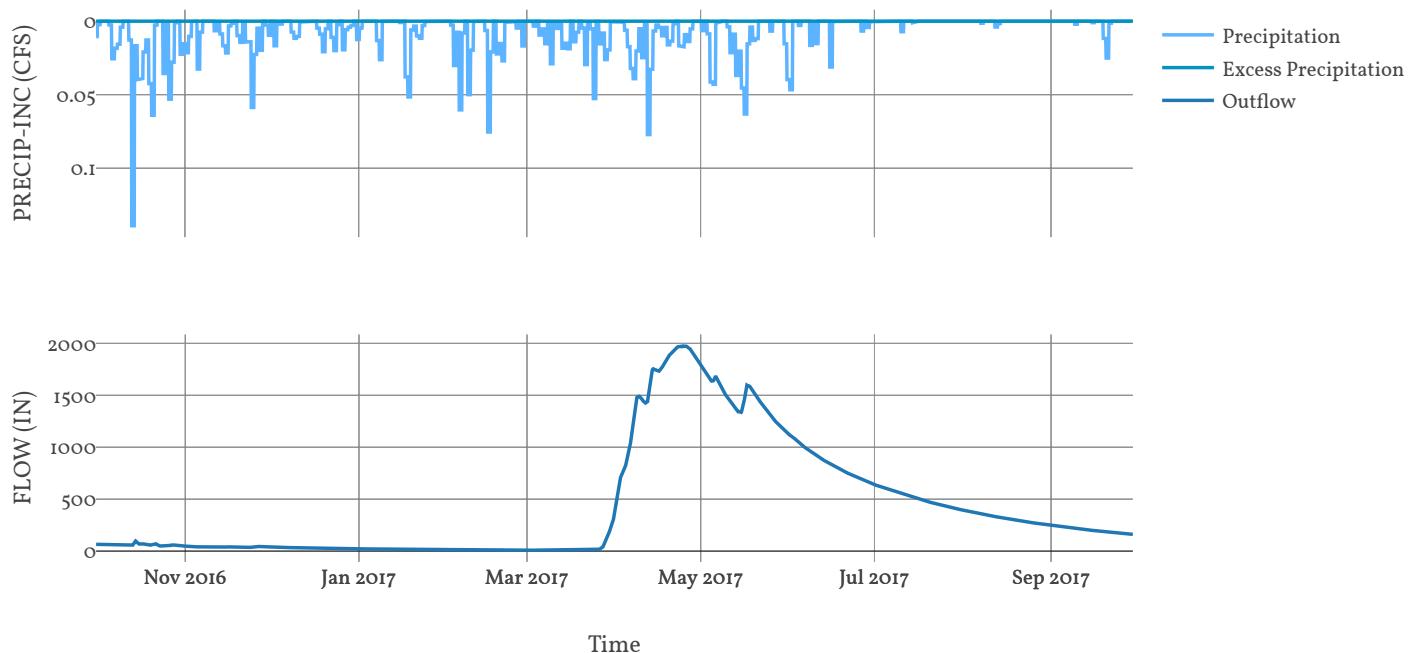
Baseflow Layer List

I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	321.6
	Number Steps	1
2	Baseflow Fraction	0.8
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	1608
	Number Steps	1

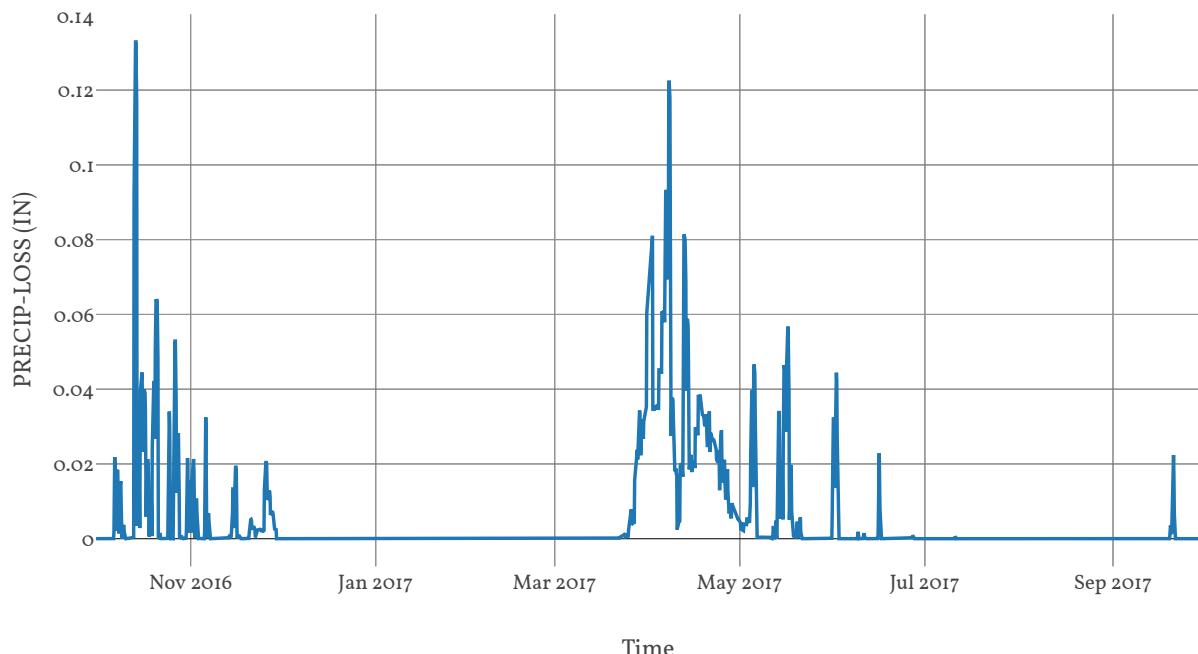
Statistics

Name	Value	Unit
Baseflow Volume	304171.89	Ac-ft
Precipitation Volume	809003.14	Ac-ft
Loss Volume	571758.76	Ac-ft
Excess Volume	2065.77	Ac-ft

Precipitation and Outflow



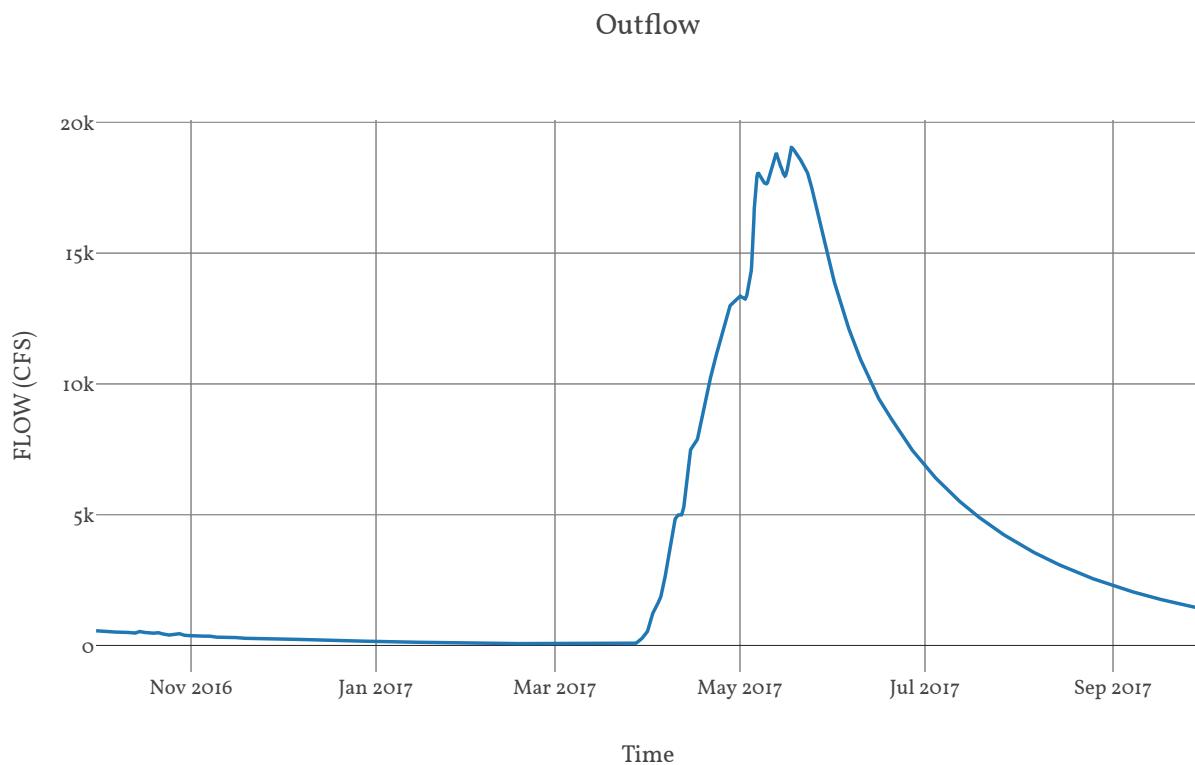
Precipitation Loss



Junction : KettleNrLaurier

Observed Hydrograph : Kettle river near laurier

Downstream : KettleRv_R010



Reach : KettleRv_Ro10

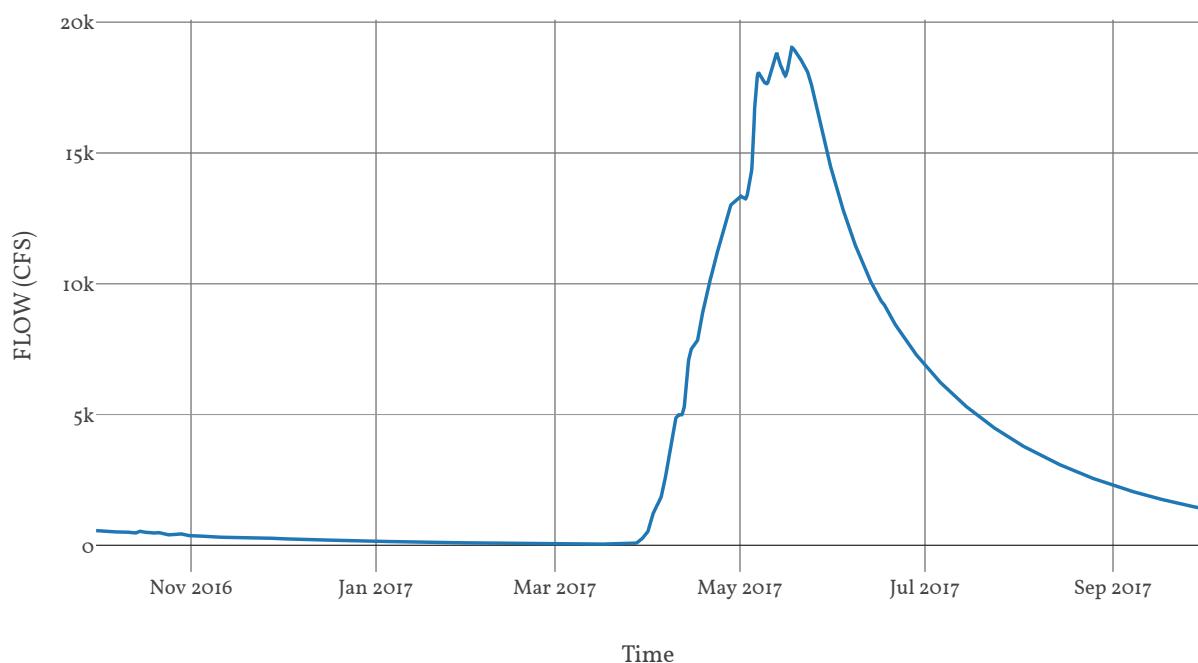
Loss Method : None

Downstream : Kettle Nr Barstow

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 98516
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name KettleRv_Ro10
	Energy Slope 0
	Right Mannings N 0.15

Outflow



Subbasin : KettleRv_Soro

Area : 240.84

Latitude : 48.85

Longitude : -118.26

Downstream : Kettle Nr Barstow

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.14
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.34
Storage Coefficient	5.34

Baseflow

Method

Linear Reservoir

Baseflow Layer List

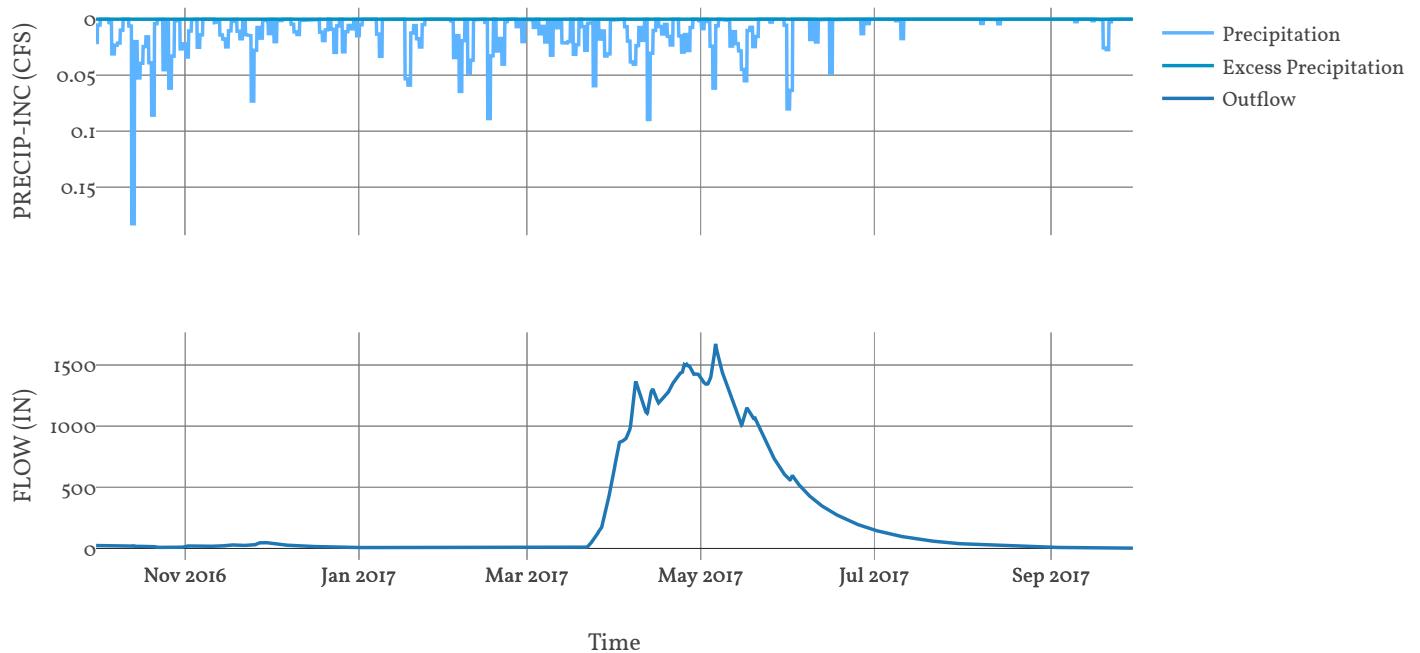
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	106.8
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	534
	Number Steps	1

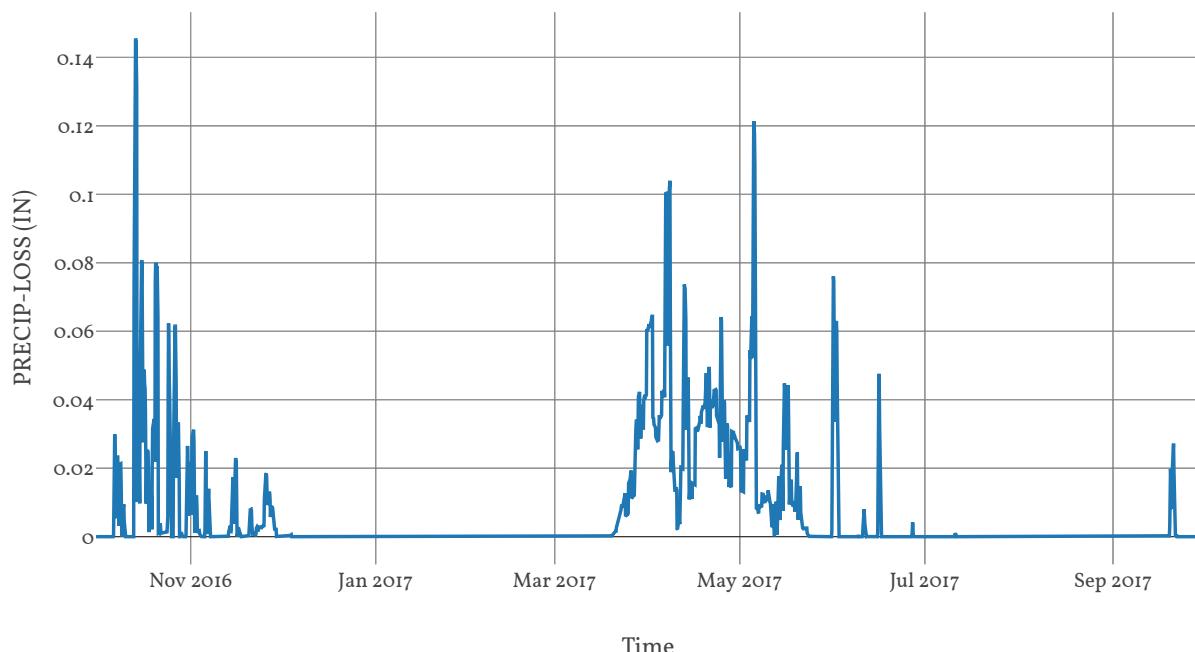
Statistics

Name	Value	Unit
Baseflow Volume	174832.83	Ac-ft
Precipitation Volume	365723.12	Ac-ft
Loss Volume	275561.24	Ac-ft
Excess Volume	386.33	Ac-ft

Precipitation and Outflow



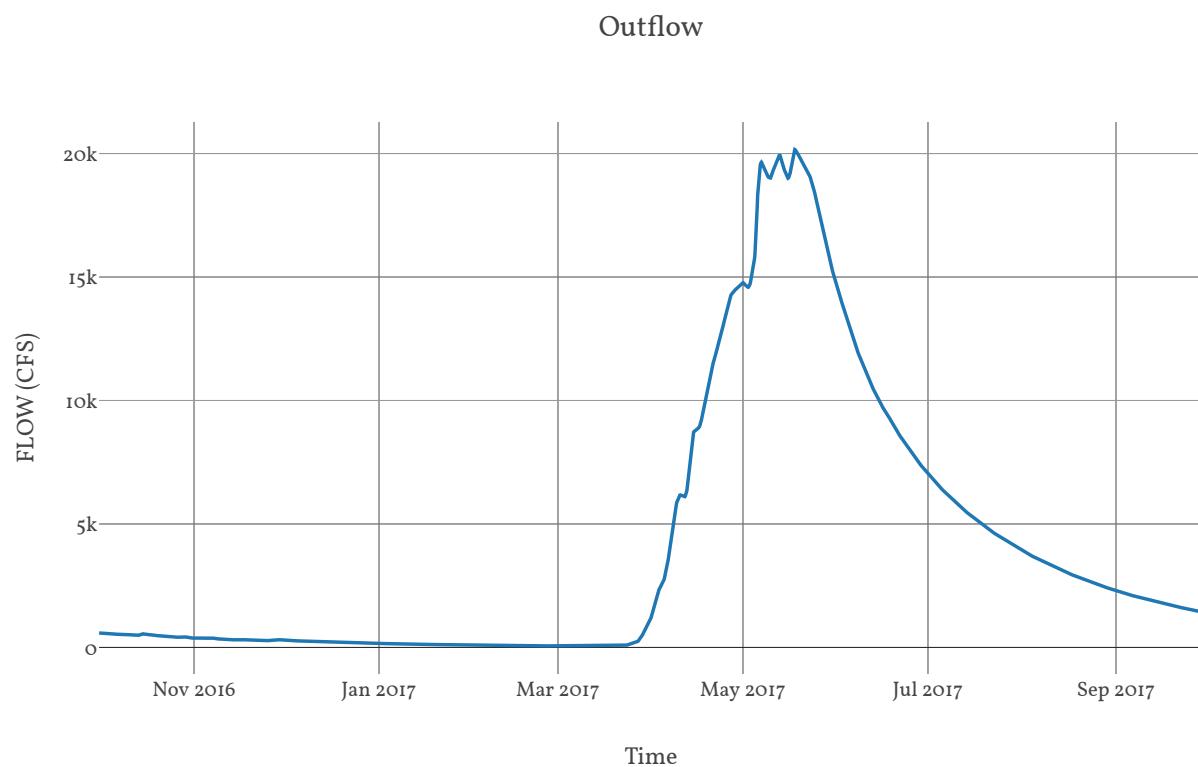
Precipitation Loss



Junction : KettleNrBarstow

Observed Hydrograph : Kettle river near barstow

Downstream : KettleRv_CF



Subbasin : MidColumbia_S110

Area : 674.8

Latitude : 48.83

Longitude : -117.87

Downstream : KettleRv_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	2.34
Method	Deficit Constant
Initial Deficit	I2
Maximum Deficit	I2
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	12.04
Storage Coefficient	12.04

Baseflow

Method

Linear Reservoir

Baseflow Layer List

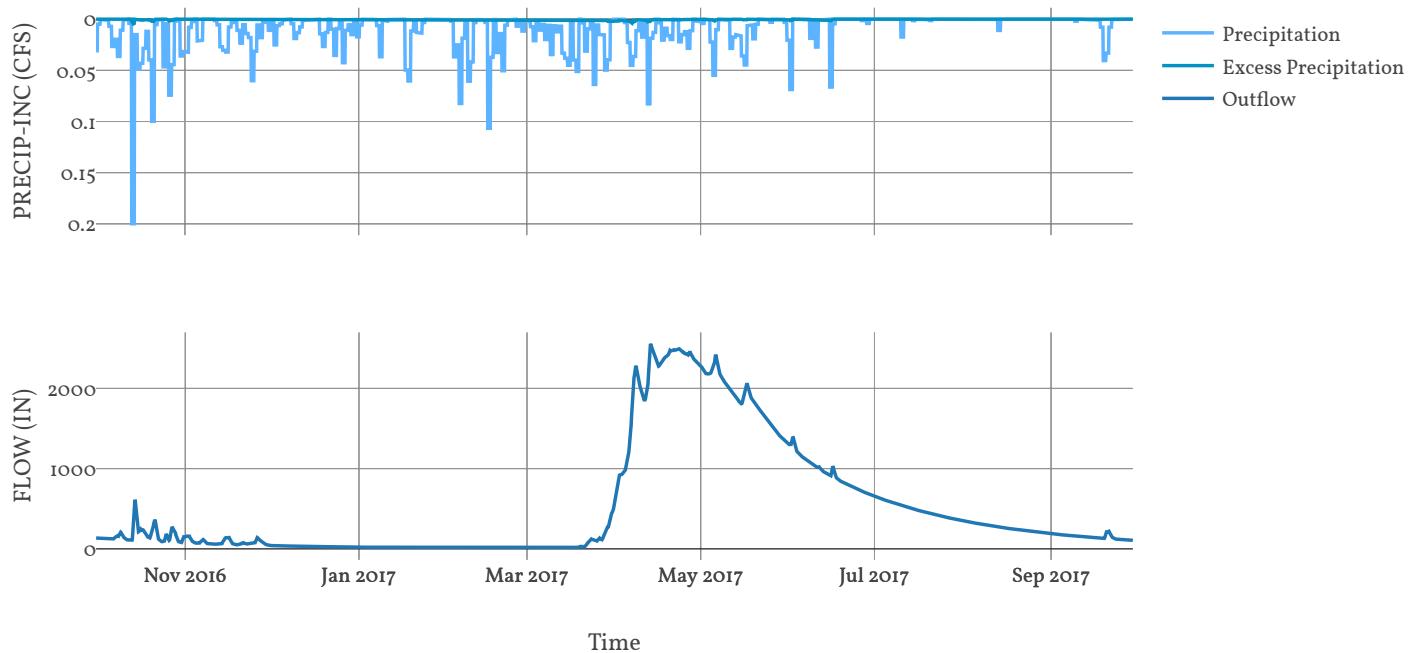
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	240.8
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.2
	Layer Number	2
	Storage Coefficient	1204
	Number Steps	1

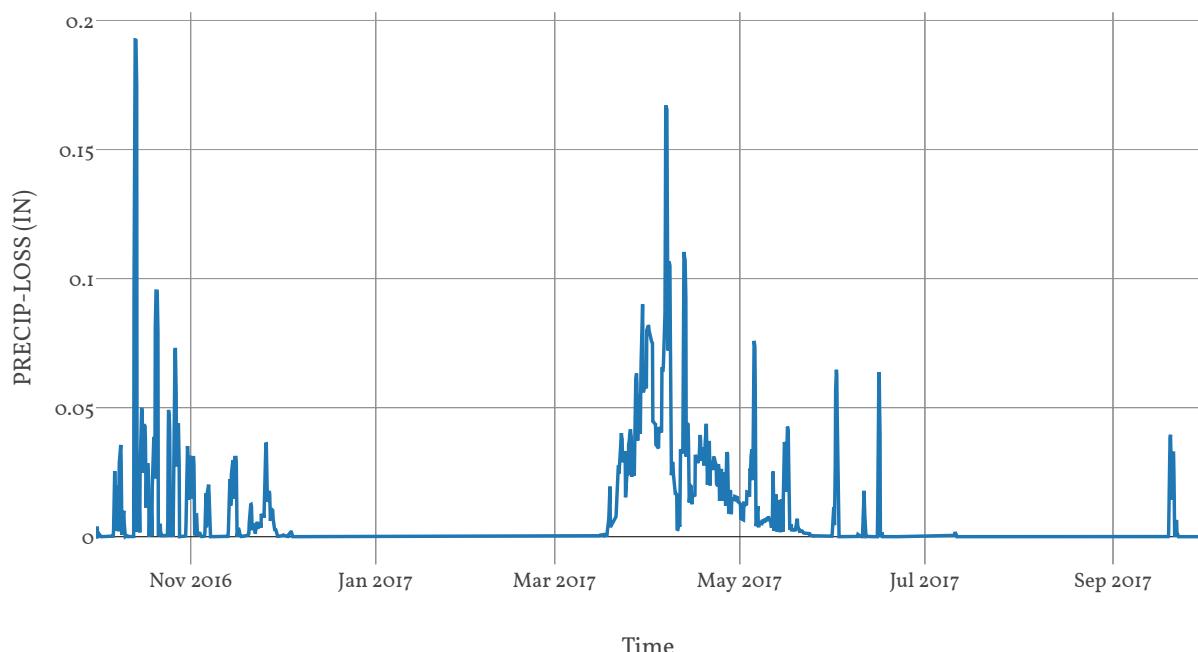
Statistics

Name	Value	Unit
Baseflow Volume	350721.32	Ac-ft
Precipitation Volume	1132001.67	Ac-ft
Loss Volume	842802.43	Ac-ft
Excess Volume	20194.12	Ac-ft

Precipitation and Outflow

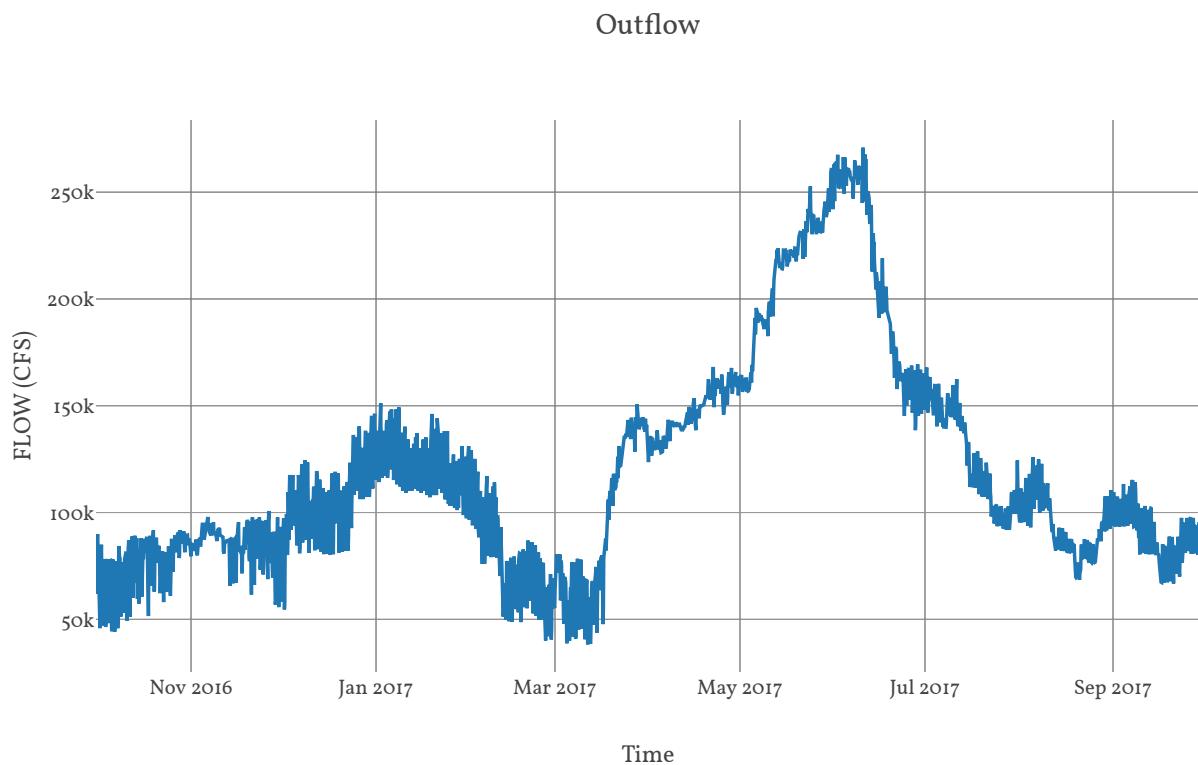


Precipitation Loss



Junction : KettleRv_CF

Downstream : MidColumbia_R105



Reach : MidColumbia_Rio5

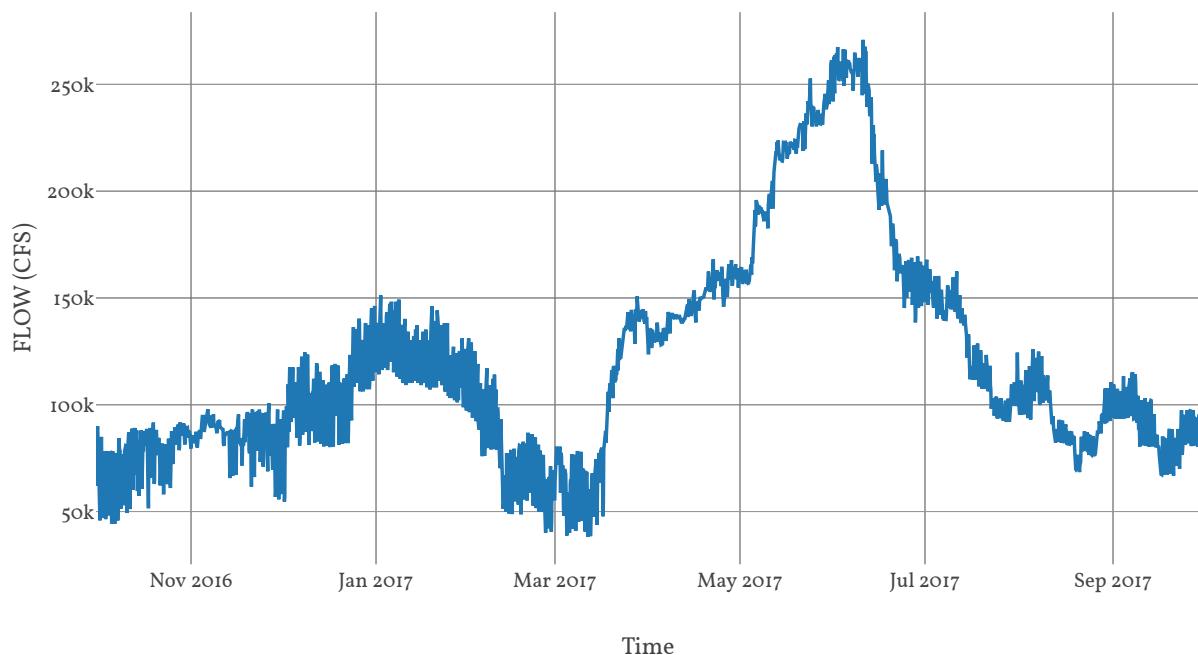
Loss Method : None

Downstream : ColvilleRv_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : ColvilleRv_Soro

Area : 1005.2

Latitude : 48.39

Longitude : -117.77

Downstream : Colville Rv At Kettle Falls

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.86
Method	Deficit Constant
Initial Deficit	I2
Maximum Deficit	I2
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	13.66
Storage Coefficient	13.66

Baseflow

Method

Linear Reservoir

Baseflow Layer List

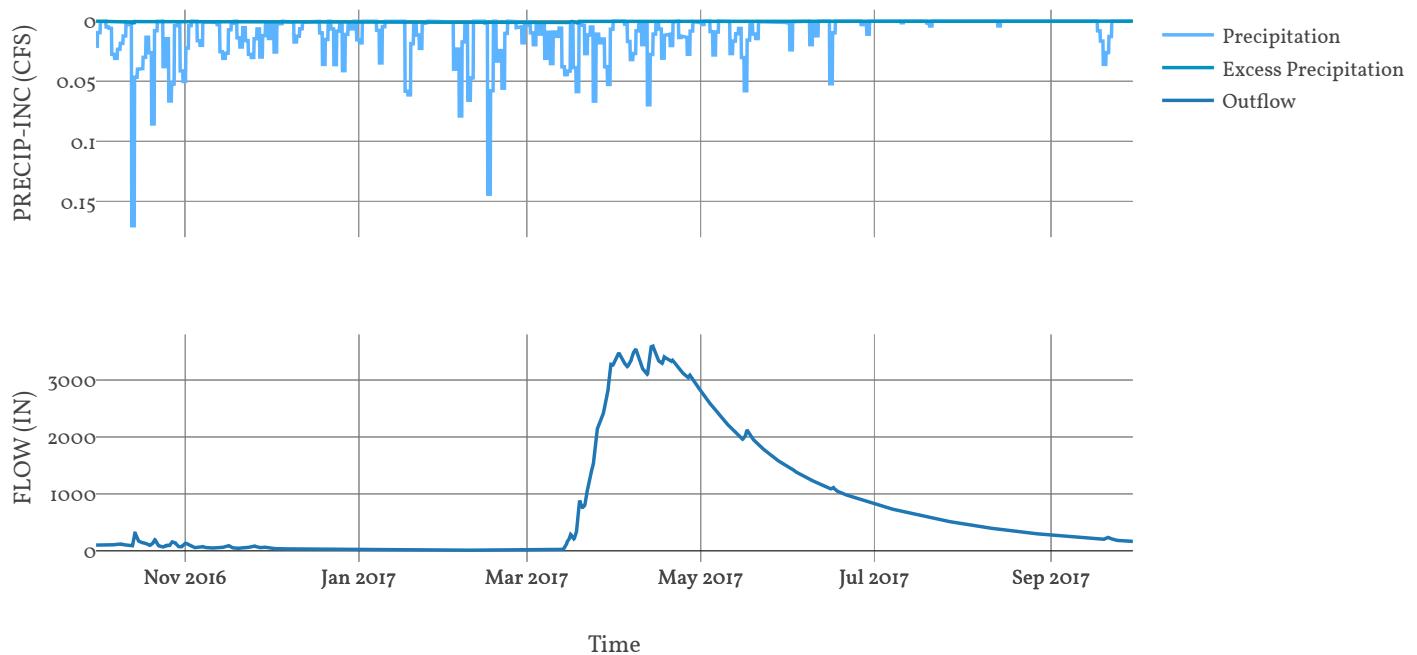
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	273.2
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	1366
	Number Steps	1

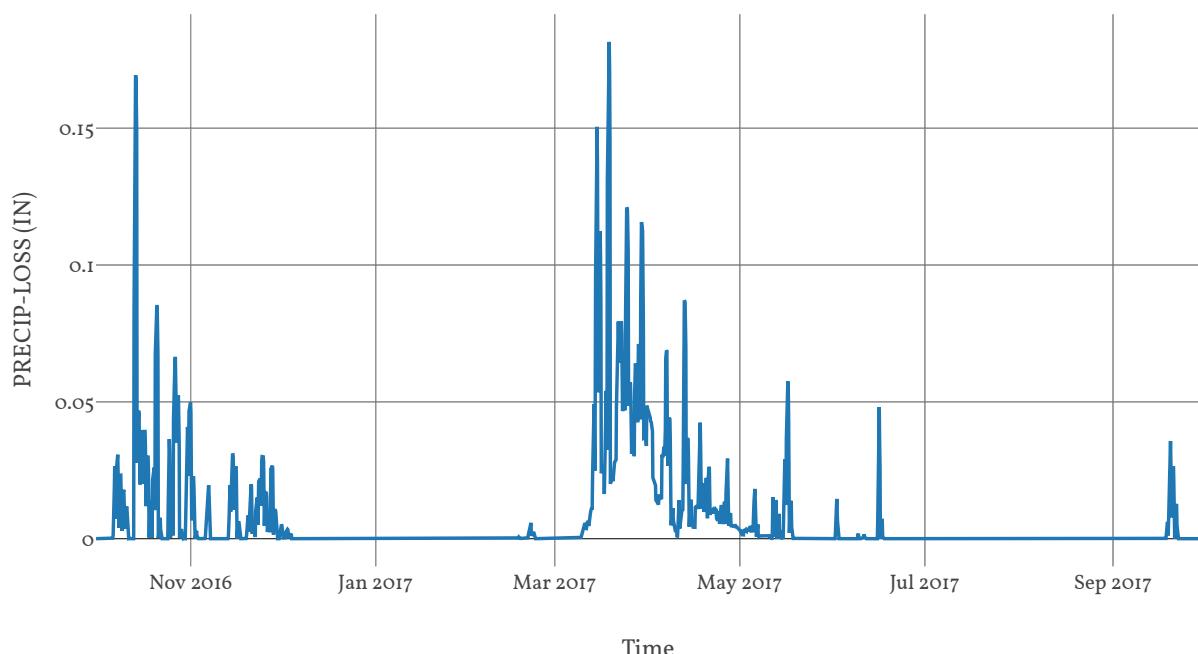
Statistics

Name	Value	Unit
Baseflow Volume	515822.46	Ac-ft
Precipitation Volume	1655273.6	Ac-ft
Loss Volume	1250482.49	Ac-ft
Excess Volume	10847.44	Ac-ft

Precipitation and Outflow



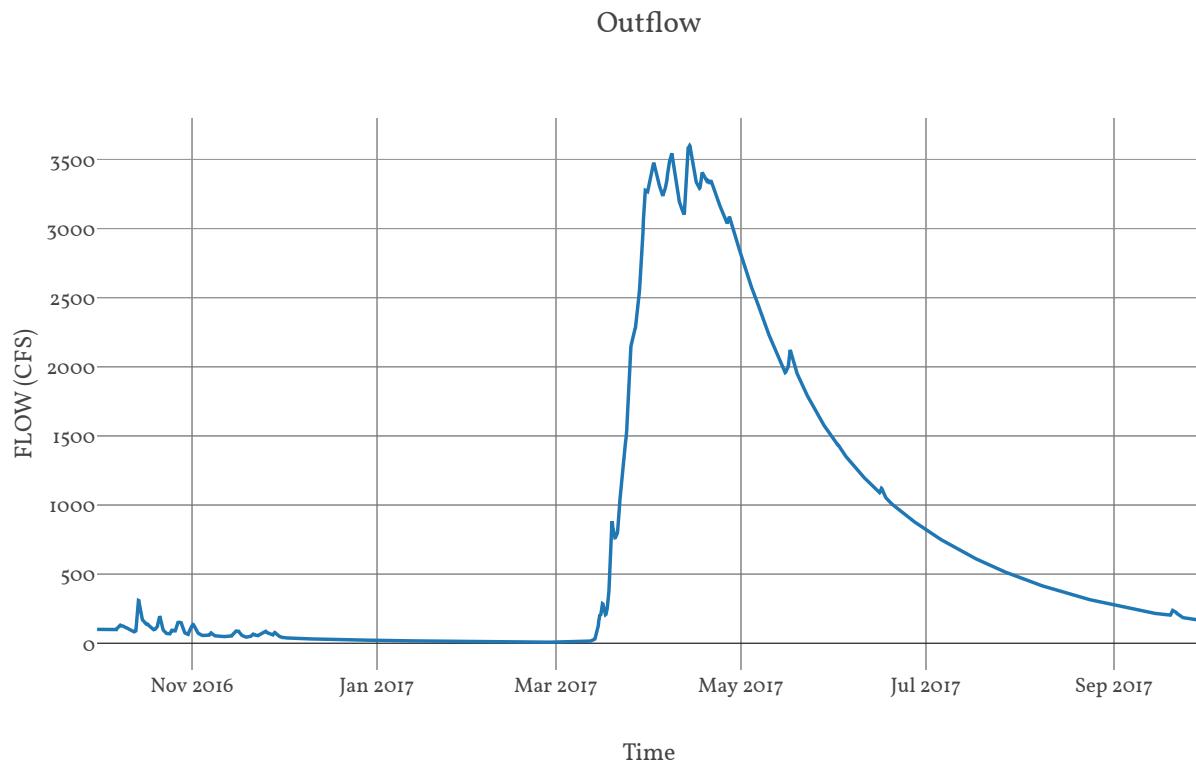
Precipitation Loss



Junction : ColvilleRvAtKettleFalls

Observed Hydrograph : Colville river at kettle fal

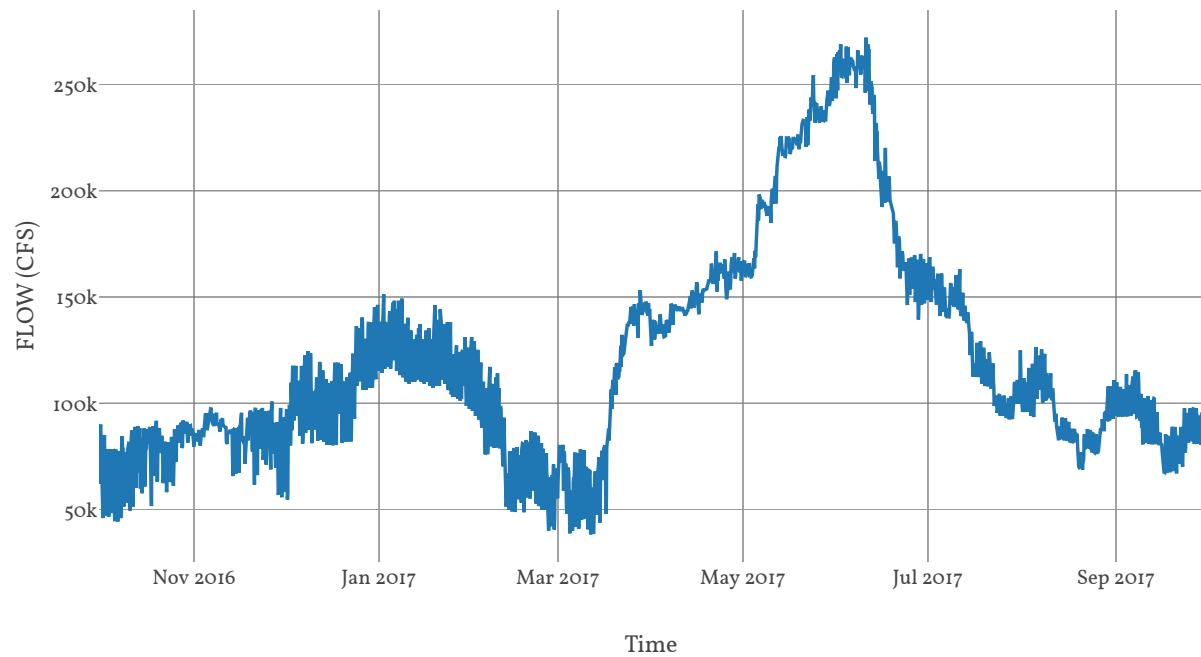
Downstream : ColvilleRv_CF



Junction : ColvilleRv_CF

Downstream : MidColumbia_R100

Outflow



Reach : MidColumbia_Rioo

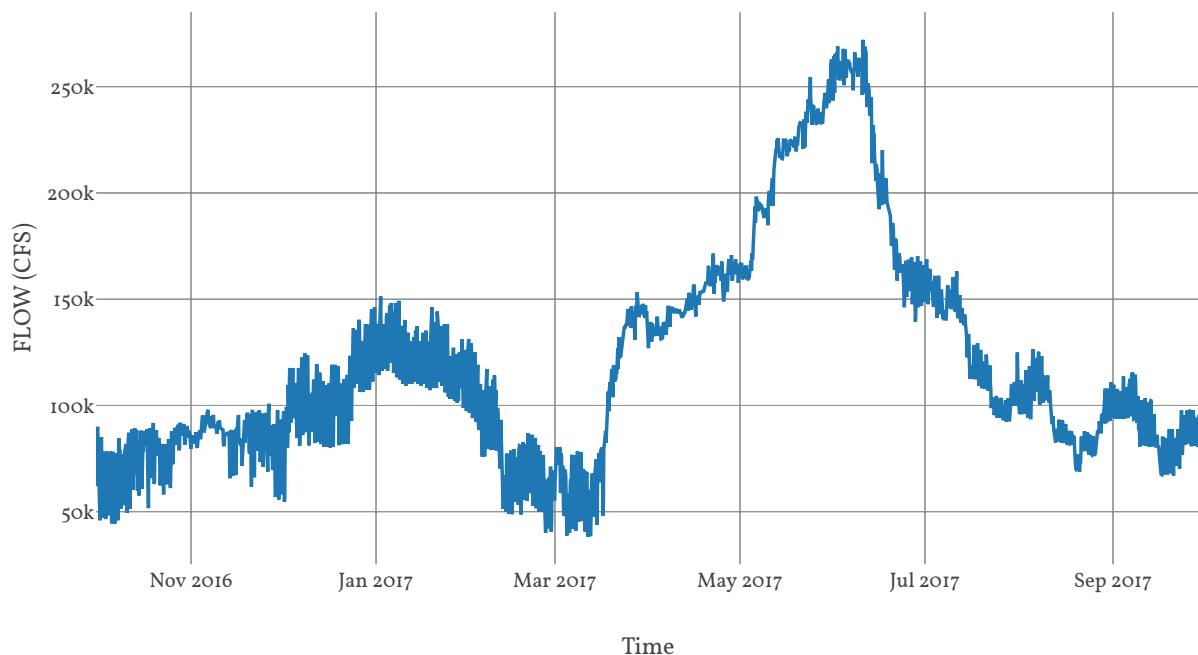
Loss Method : None

Downstream : SpokaneRv_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

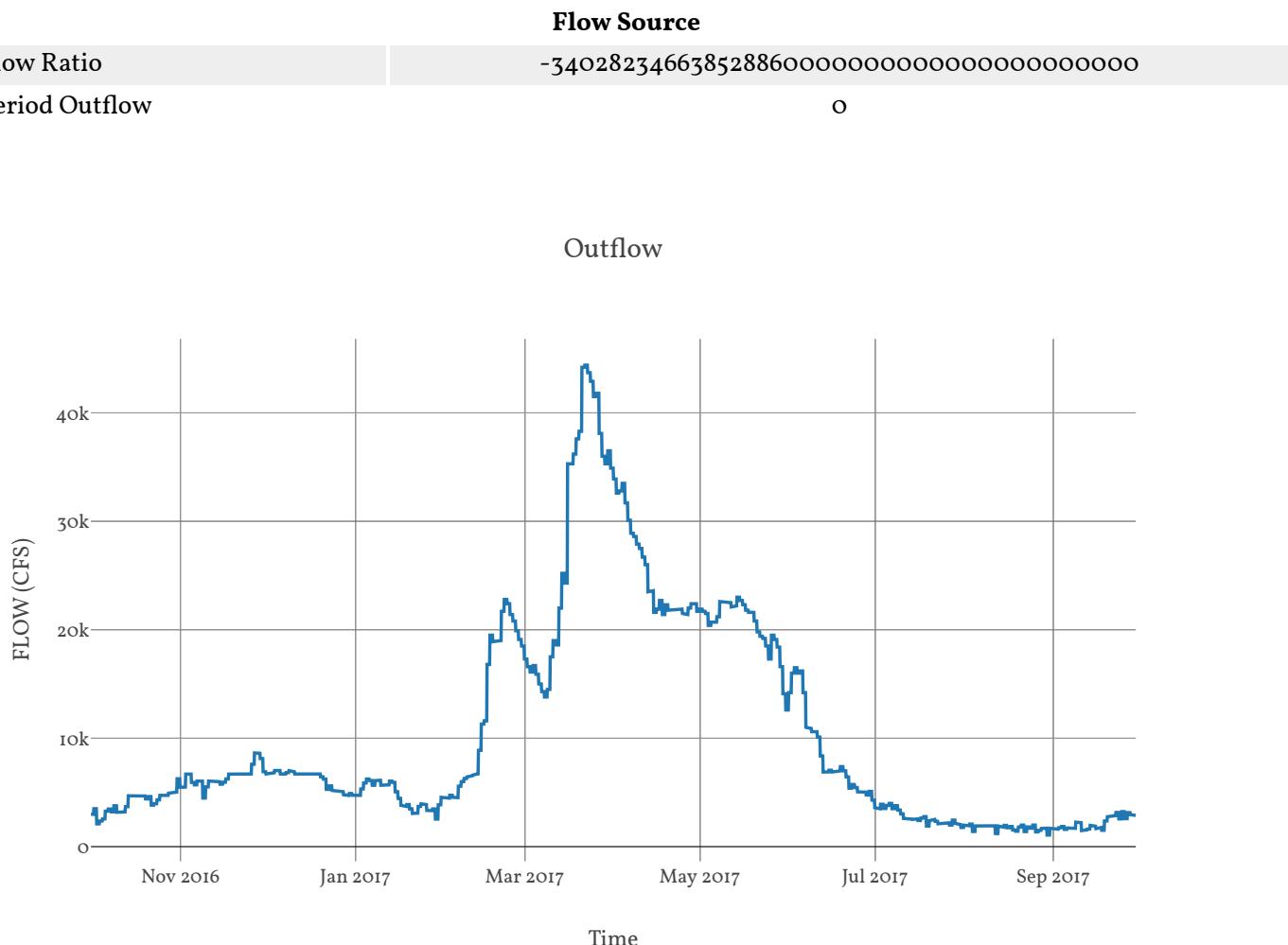
Outflow



Source : SpokaneRv

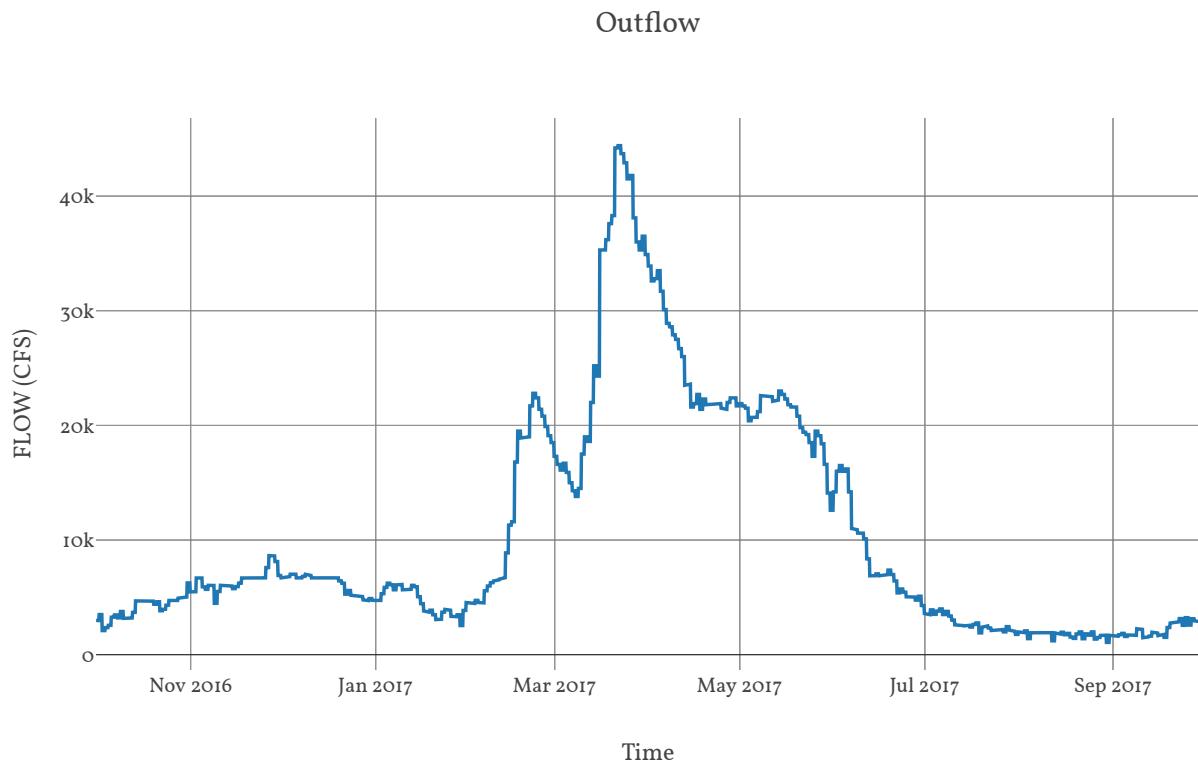
Area : 6020

Downstream : Spokane In



Junction : SpokaneIn

Downstream : SpokaneRv_CF



Subbasin : MidColumbia_S100

Area : 1130.4

Latitude : 48.3

Longitude : -118.3

Downstream : SpokaneRv_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	5.86
Method	Deficit Constant
Initial Deficit	I2
Maximum Deficit	I2
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	17.53
Storage Coefficient	17.53

Baseflow

Method

Linear Reservoir

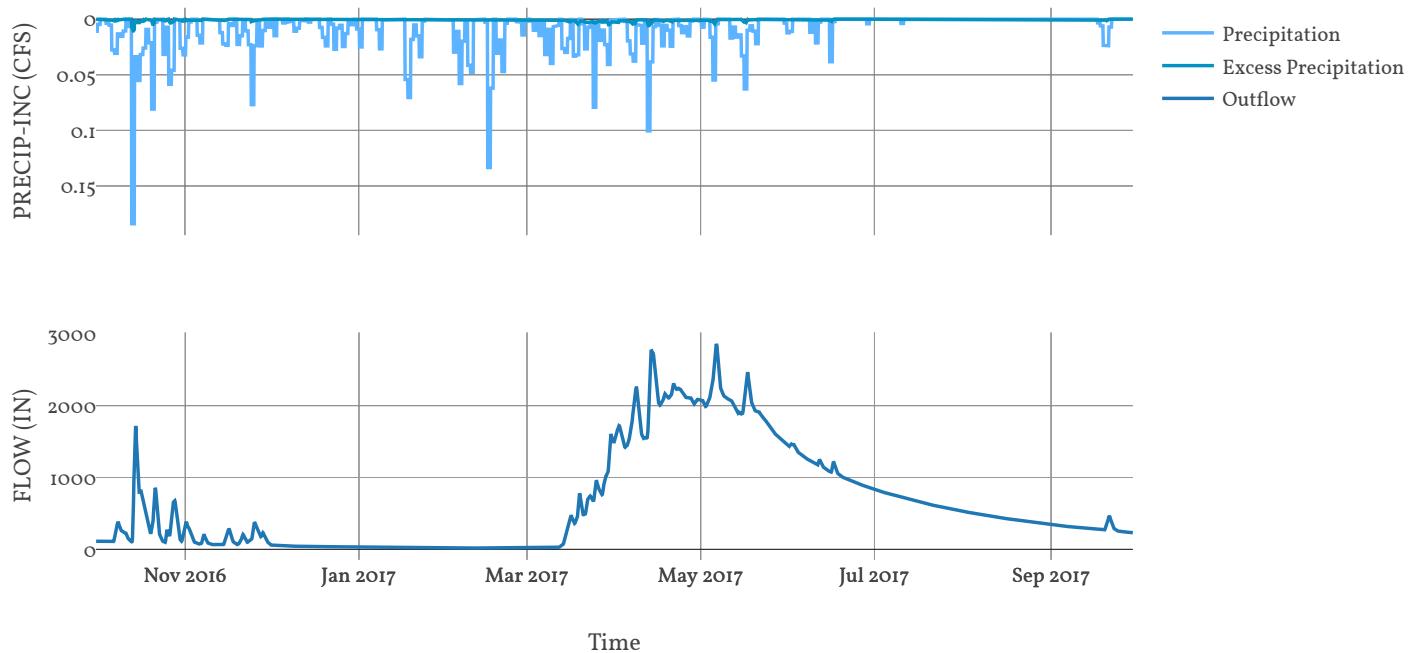
Baseflow Layer List

I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	350.6
	Number Steps	1
2	Baseflow Fraction	0.8
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	1753
	Number Steps	1

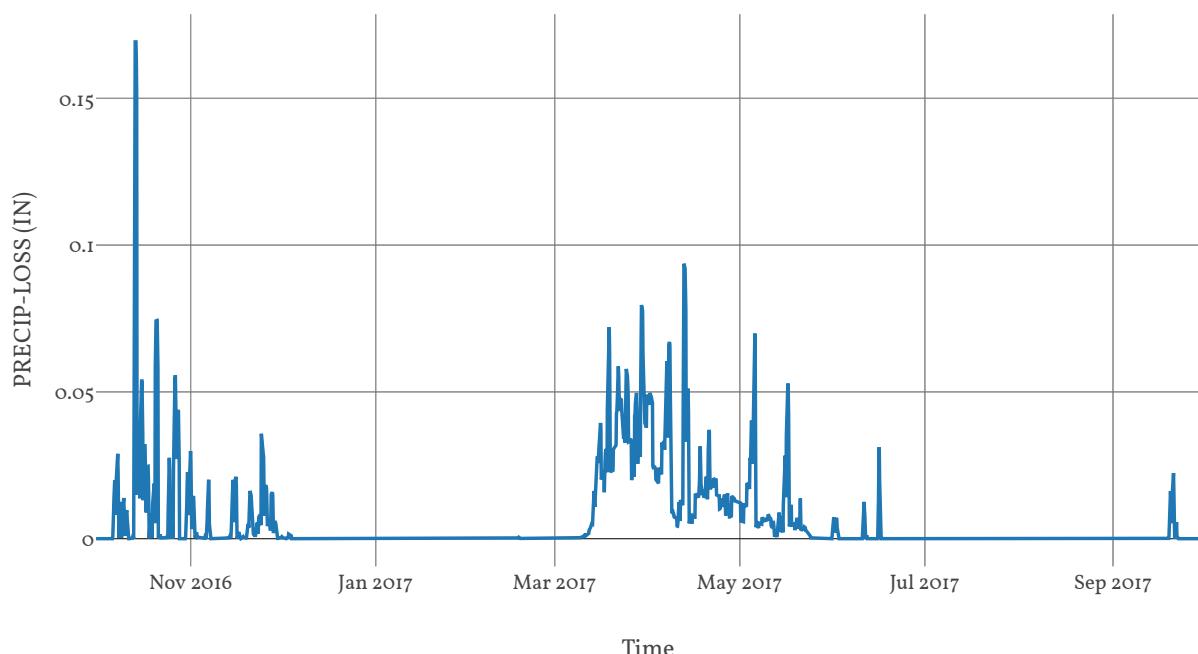
Statistics

Name	Value	Unit
Baseflow Volume	380126.56	Ac-ft
Precipitation Volume	1647335.4	Ac-ft
Loss Volume	1162145.42	Ac-ft
Excess Volume	72340.9	Ac-ft

Precipitation and Outflow

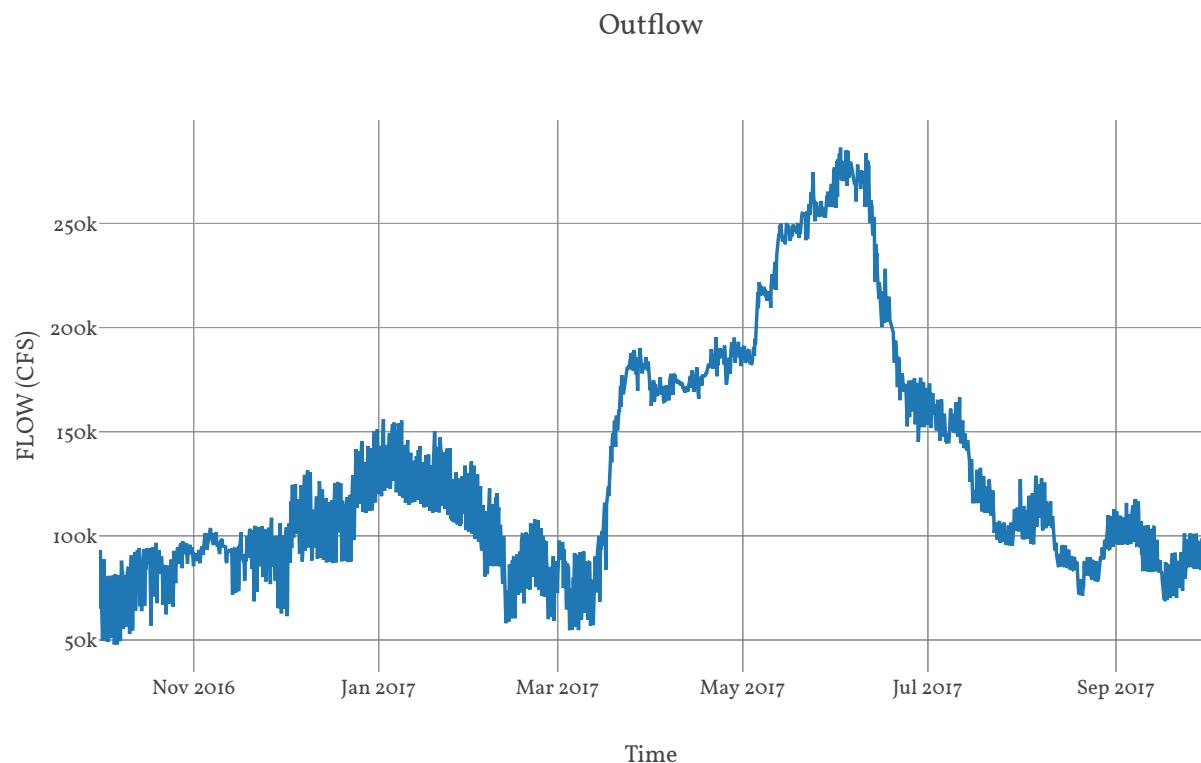


Precipitation Loss



Junction : SpokaneRv_CF

Downstream : MidColumbia_R095



Reach : MidColumbia_R095

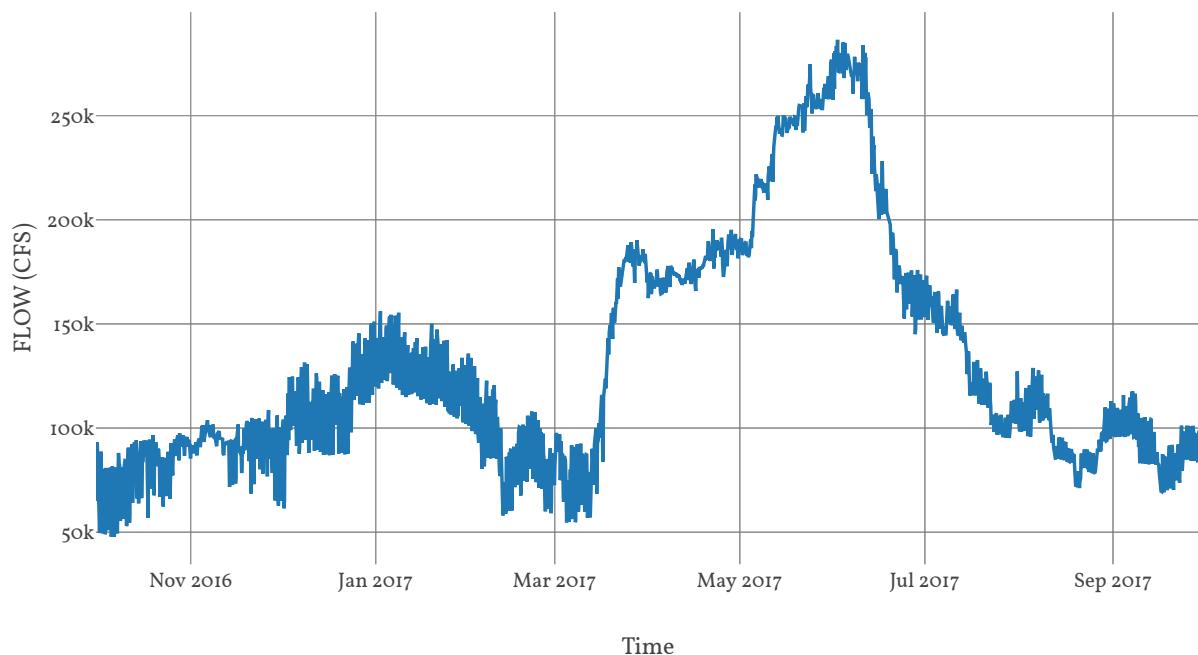
Loss Method : None

Downstream : SanpoilRv_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : SanpoilRv_Soro

Area : 890.88

Latitude : 48.47

Longitude : -118.81

Downstream : Sanpoil Rv

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.25
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	14.06
Storage Coefficient	14.06

Baseflow

Method

Linear Reservoir

Baseflow Layer List

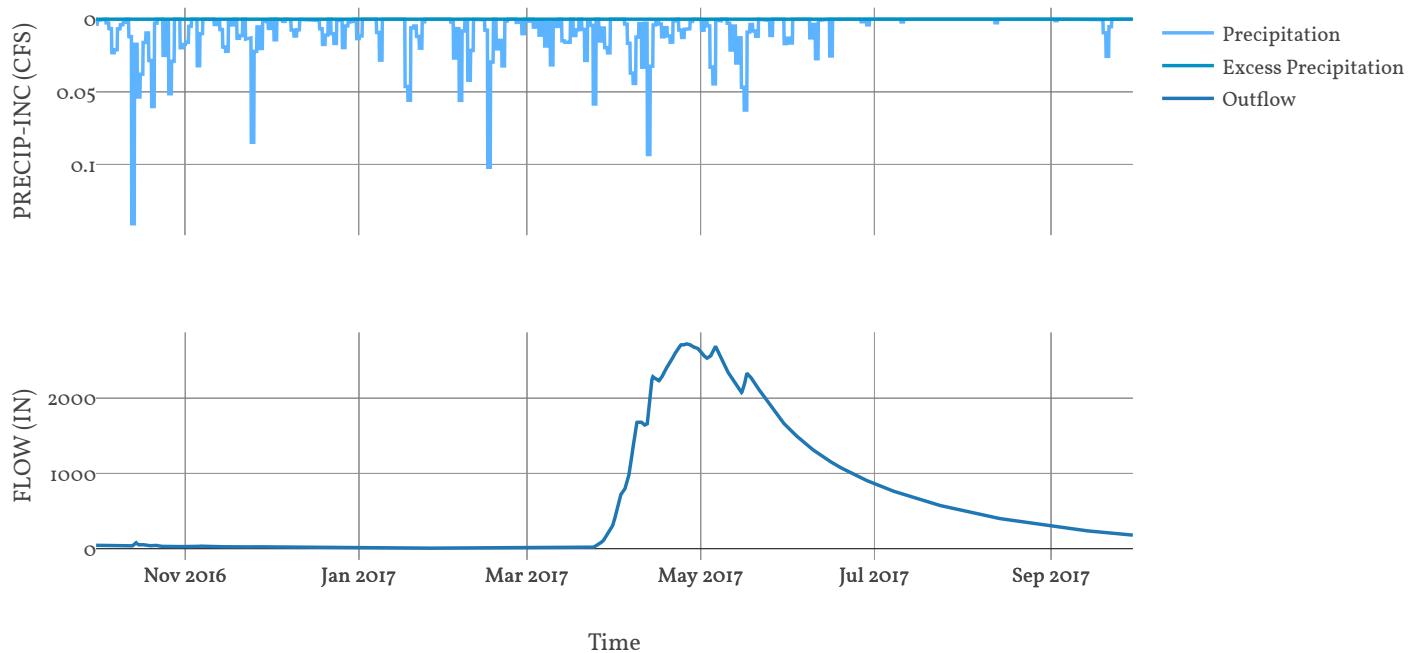
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	281.2
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	1406
	Number Steps	1

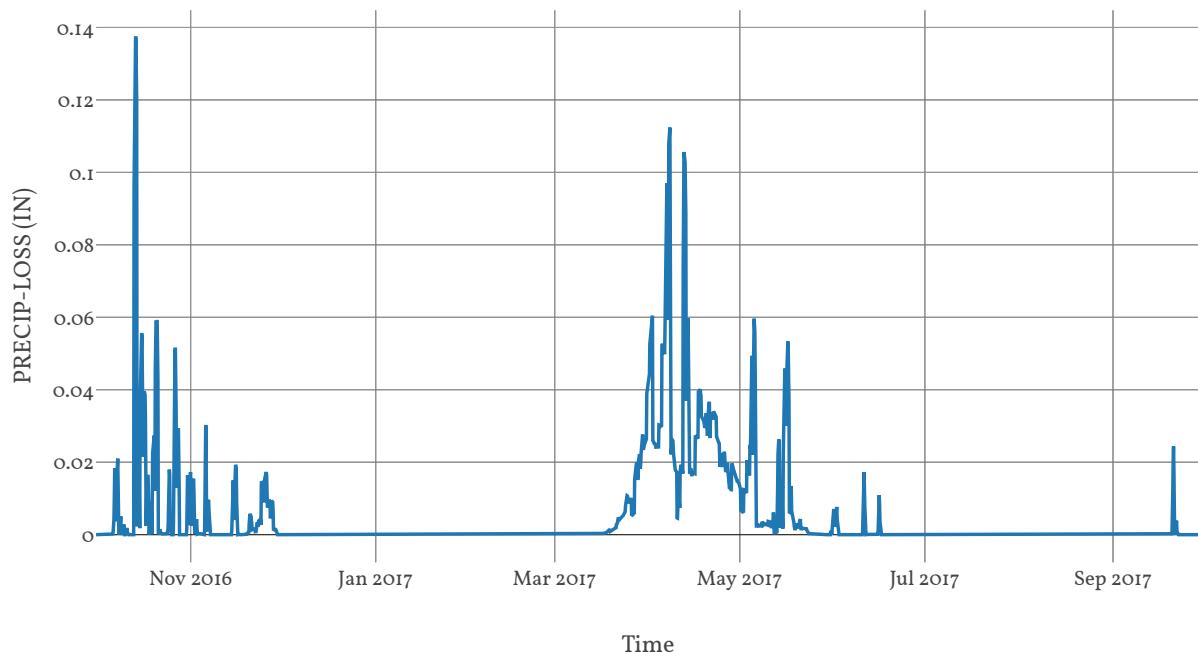
Statistics

Name	Value	Unit
Baseflow Volume	407582.96	Ac-ft
Precipitation Volume	1062535.83	Ac-ft
Loss Volume	763618.15	Ac-ft
Excess Volume	1913.83	Ac-ft

Precipitation and Outflow



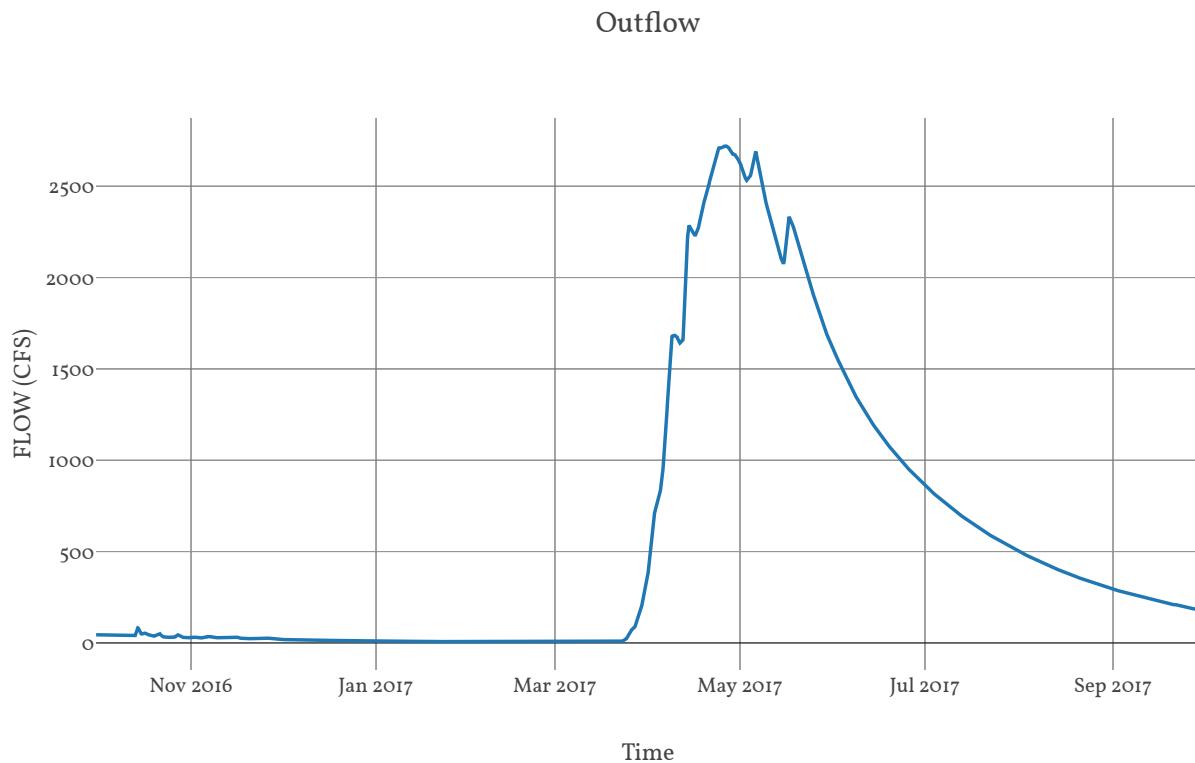
Precipitation Loss



Junction : SanpoilRv

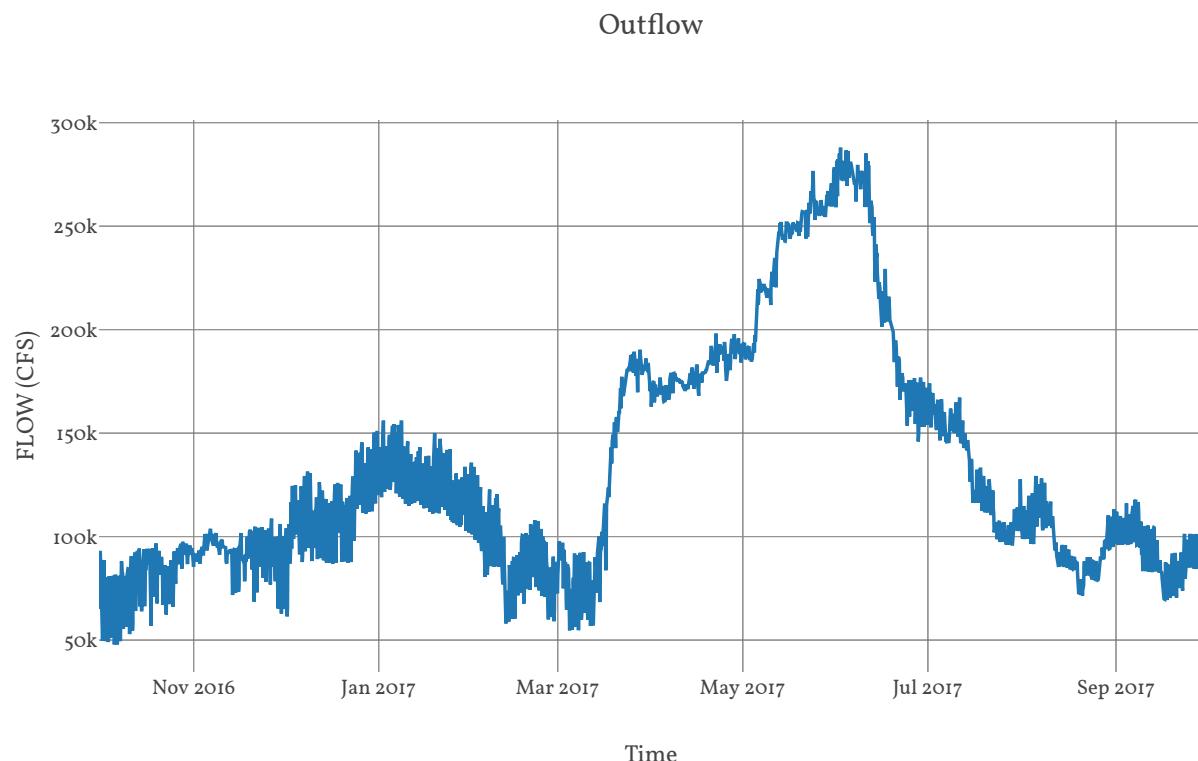
Observed Hydrograph : Sanpoil river above jack cre

Downstream : SanpoilRv_CF



Junction : SanpoilRv_CF

Downstream : MidColumbia_Ro90



Reach : MidColumbia_Ro90

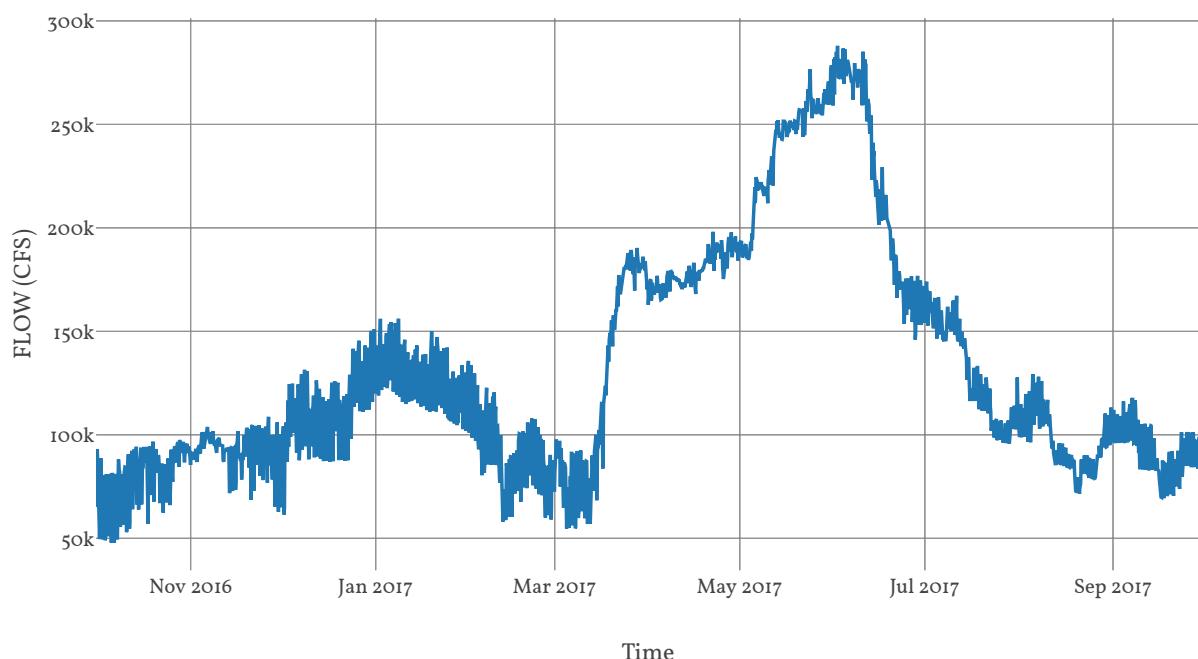
Loss Method : None

Downstream : GrandCoulee_IN

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : MidColumbia_So90

Area : 527.13

Latitude : 47.87

Longitude : -118.51

Downstream : GrandCoulee_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	7.97
Method	Deficit Constant
Initial Deficit	I2
Maximum Deficit	I2
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	14.61
Storage Coefficient	14.61

Baseflow

Method

Linear Reservoir

Baseflow Layer List

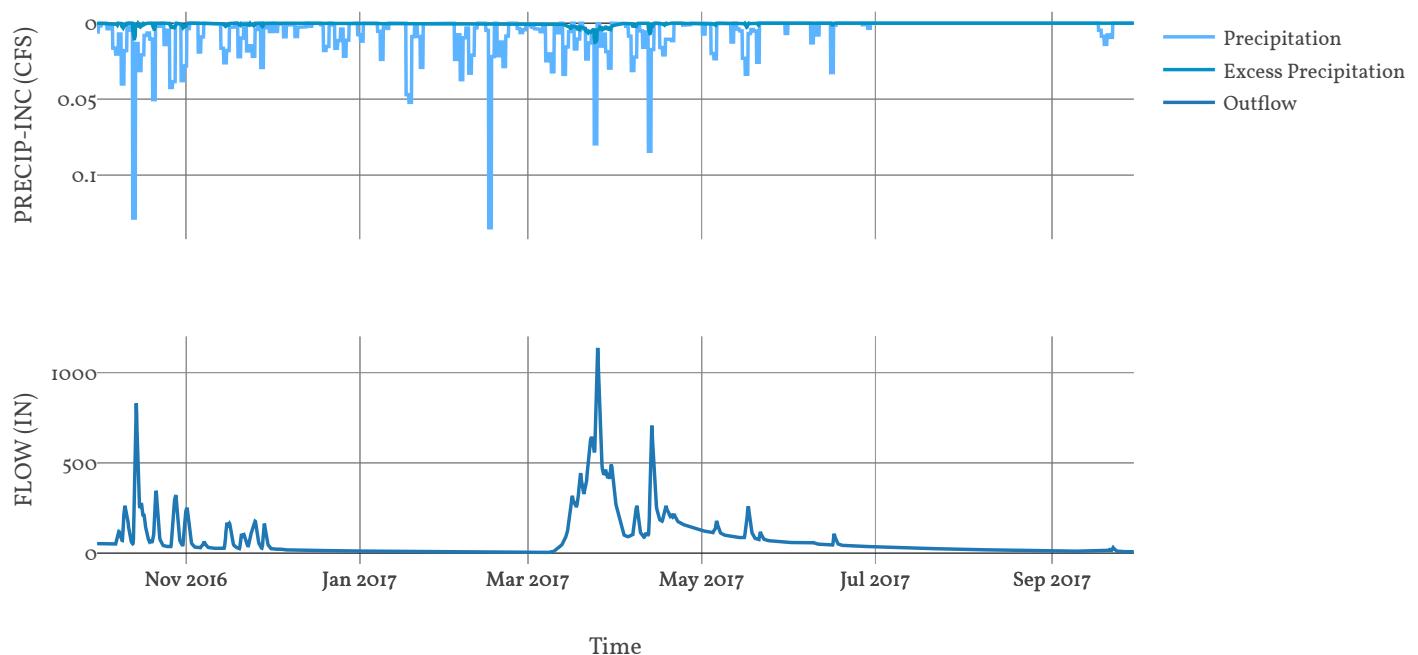
I	Baseflow Fraction	0.2
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	292.2
	Number Steps	1

2	Baseflow Fraction	0.8
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	1461
	Number Steps	1

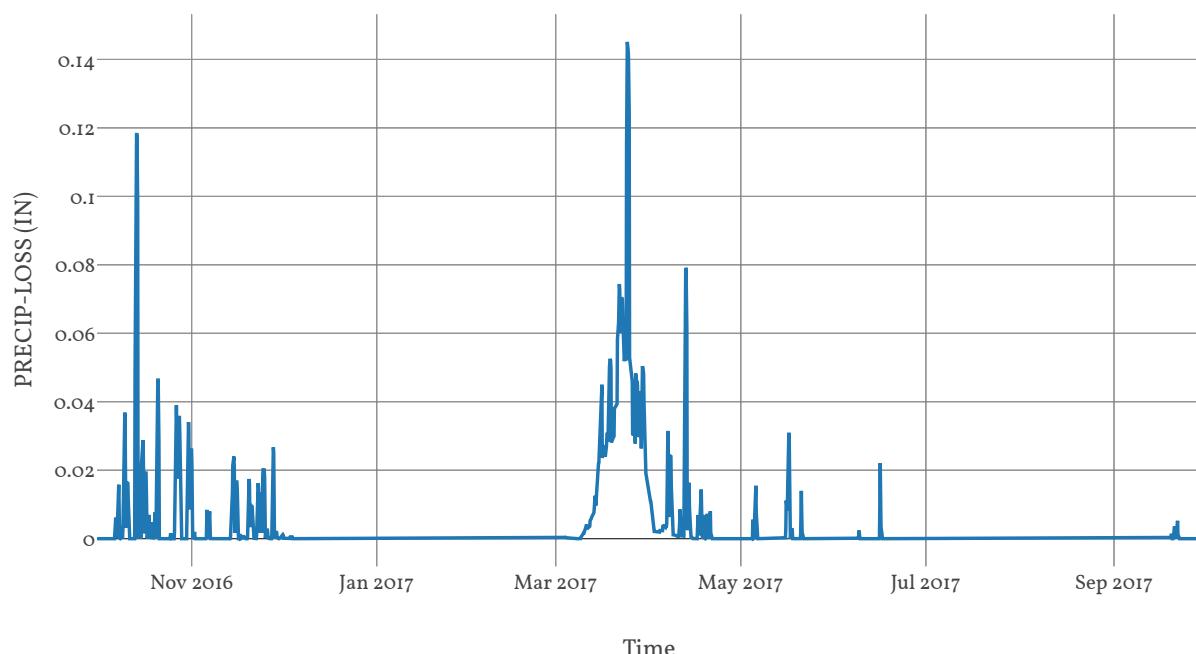
Statistics

Name	Value	Unit
Baseflow Volume	25560.63	Ac-ft
Precipitation Volume	547943.65	Ac-ft
Loss Volume	328327.33	Ac-ft
Excess Volume	28433.87	Ac-ft

Precipitation and Outflow



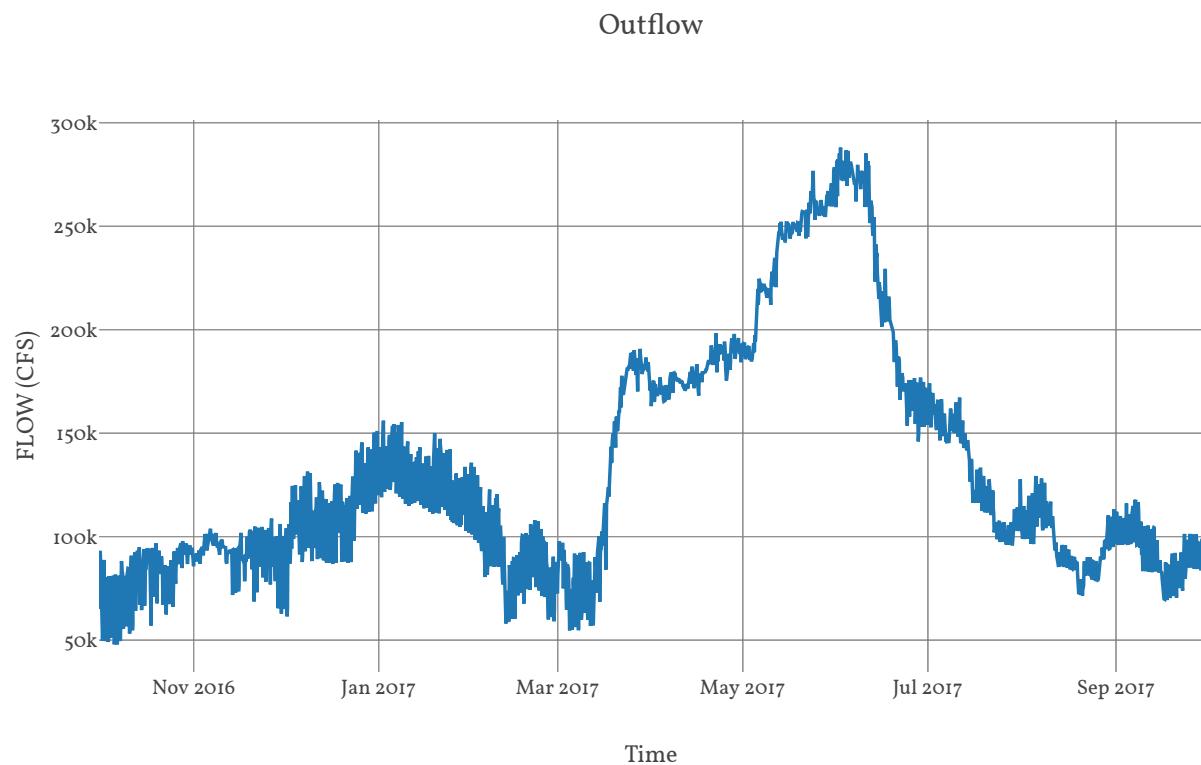
Precipitation Loss



Junction : GrandCoulee_IN

Observed Hydrograph : Grand Coulee In

Downstream : Grand Coulee

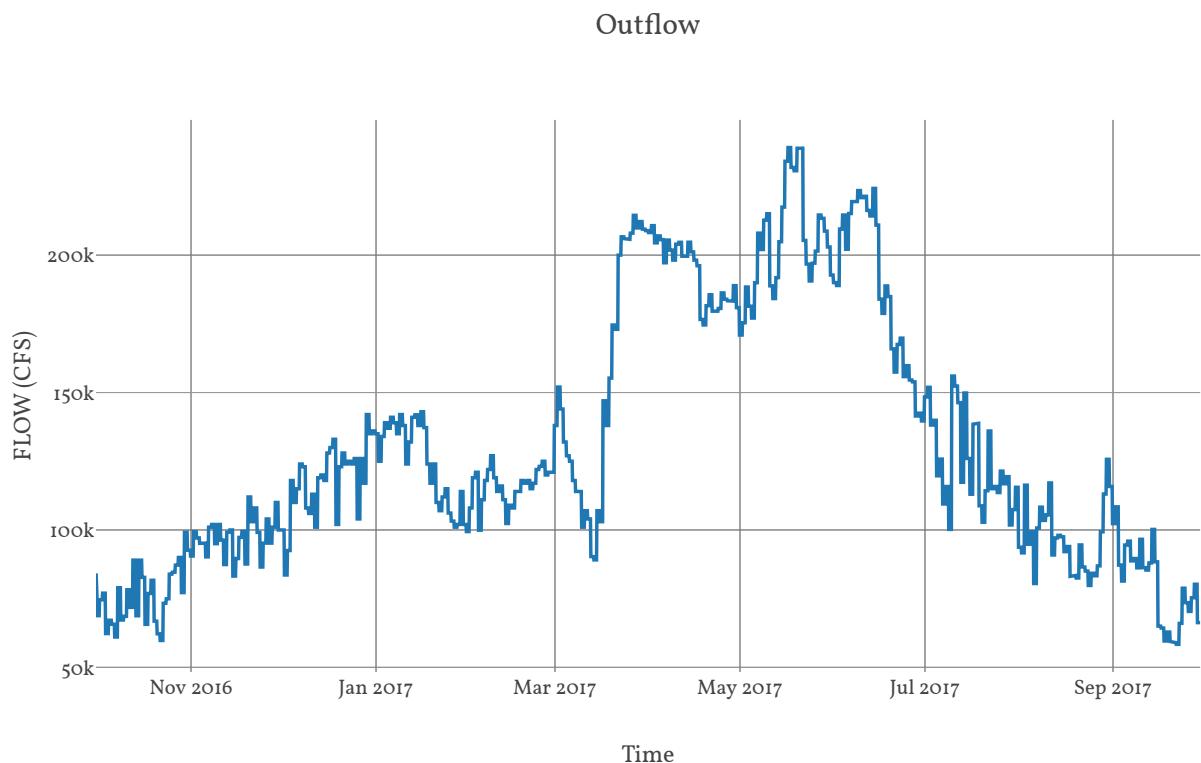


Reservoir : GrandCoulee

Quality Method : Unspecified

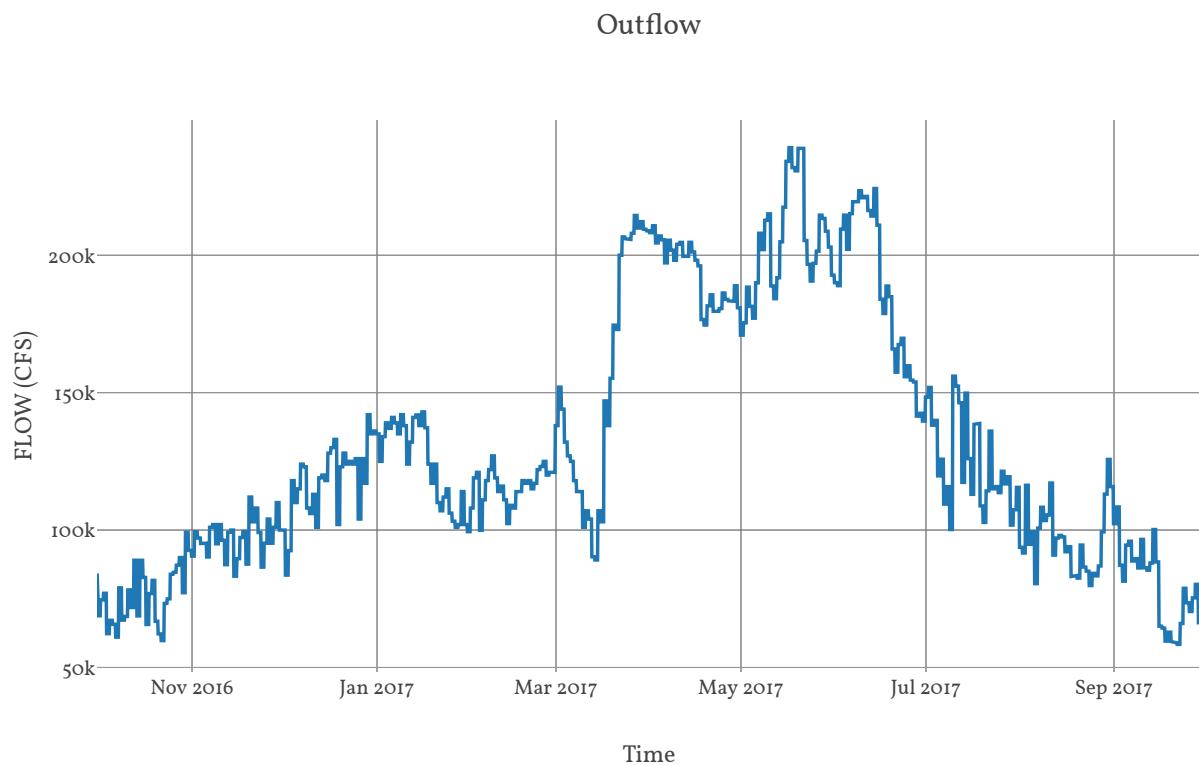
Method : Specified Outflow

Downstream : GrandCoulee_OUT



Junction : GrandCoulee_OUT

Downstream : MidColumbia_R080



Reach : MidColumbia_Ro80

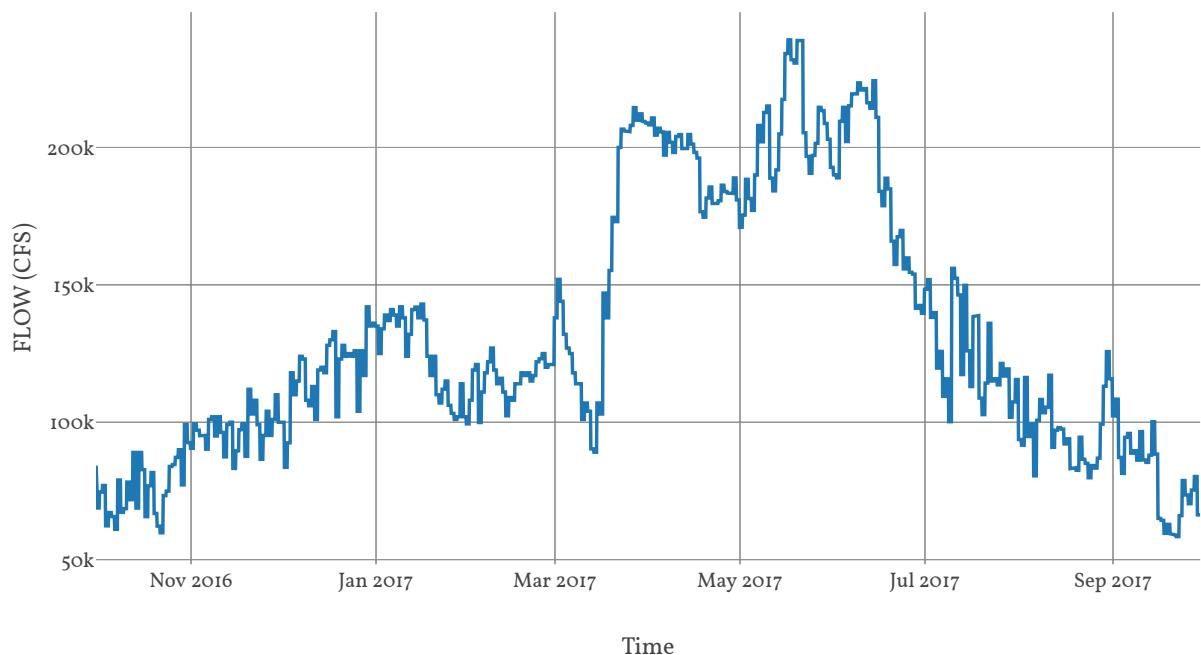
Loss Method : None

Downstream : ChiefJoseph_IN

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : MidColumbia_So80

Area : 672.17

Latitude : 48.14

Longitude : -119.13

Downstream : ChiefJoseph_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.91
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	1

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	1
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	13.84
Storage Coefficient	13.84

Baseflow

Method

Linear Reservoir

Baseflow Layer List

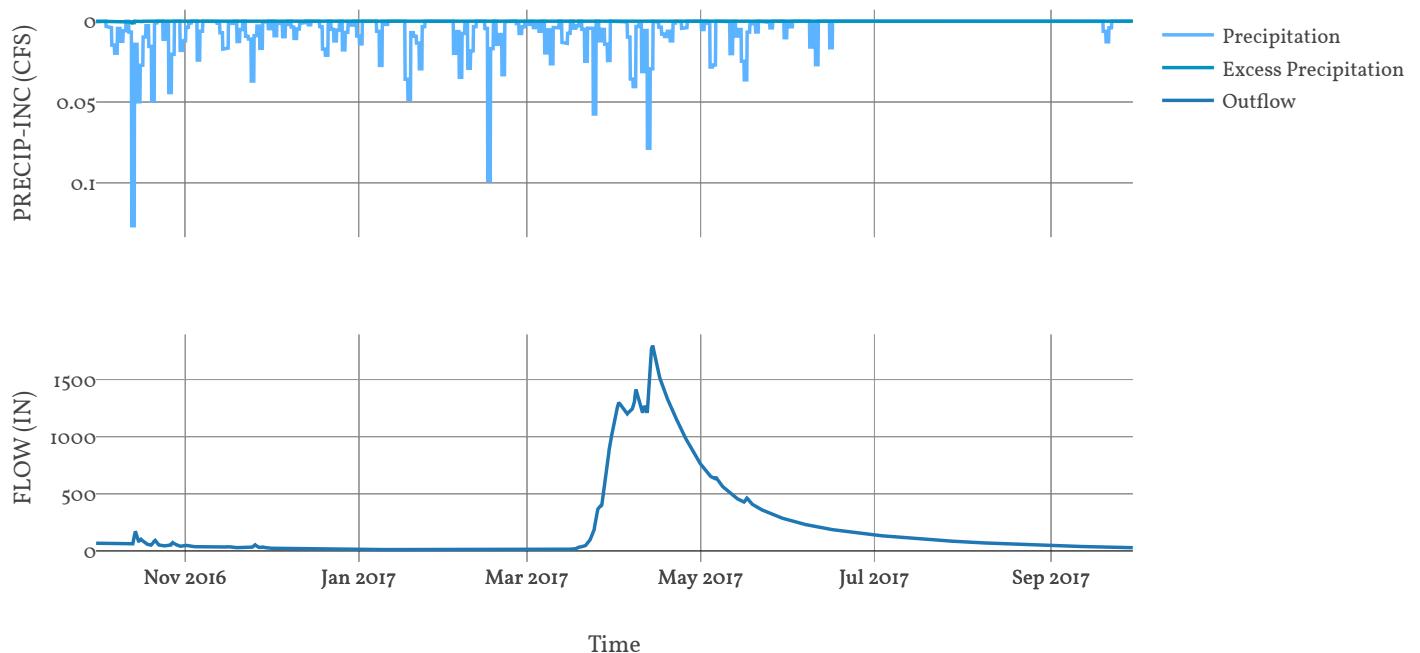
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	276.8
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	1384
	Number Steps	1

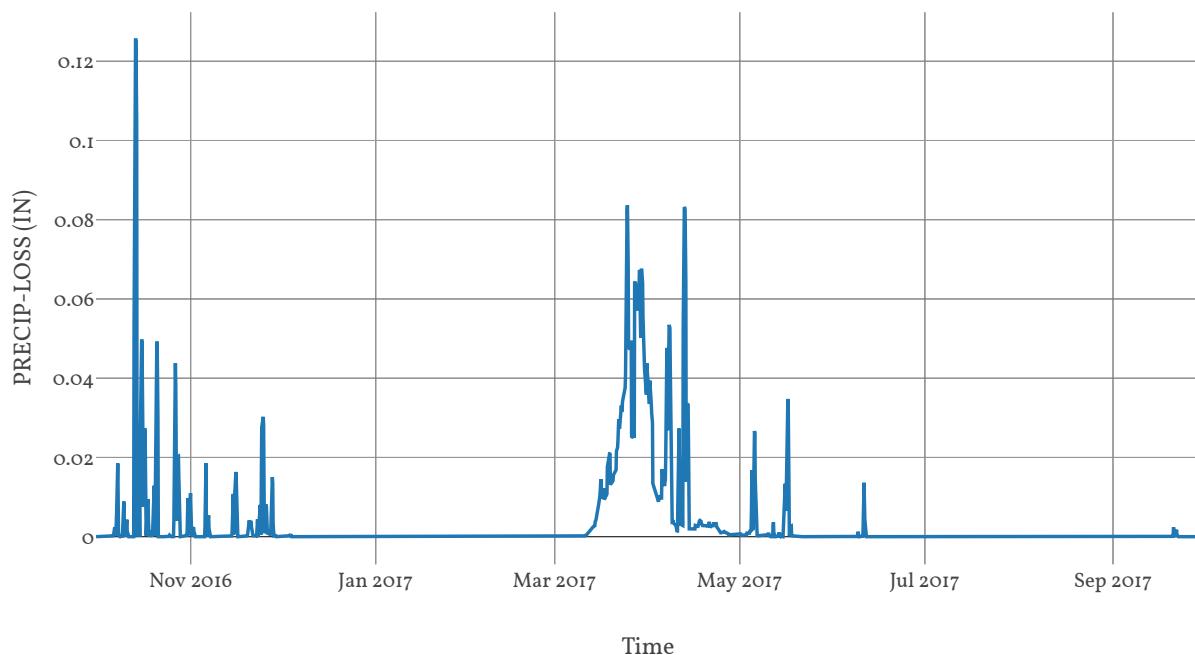
Statistics

Name	Value	Unit
Baseflow Volume	140681.02	Ac-ft
Precipitation Volume	617067.44	Ac-ft
Loss Volume	387344.26	Ac-ft
Excess Volume	3557.2	Ac-ft

Precipitation and Outflow



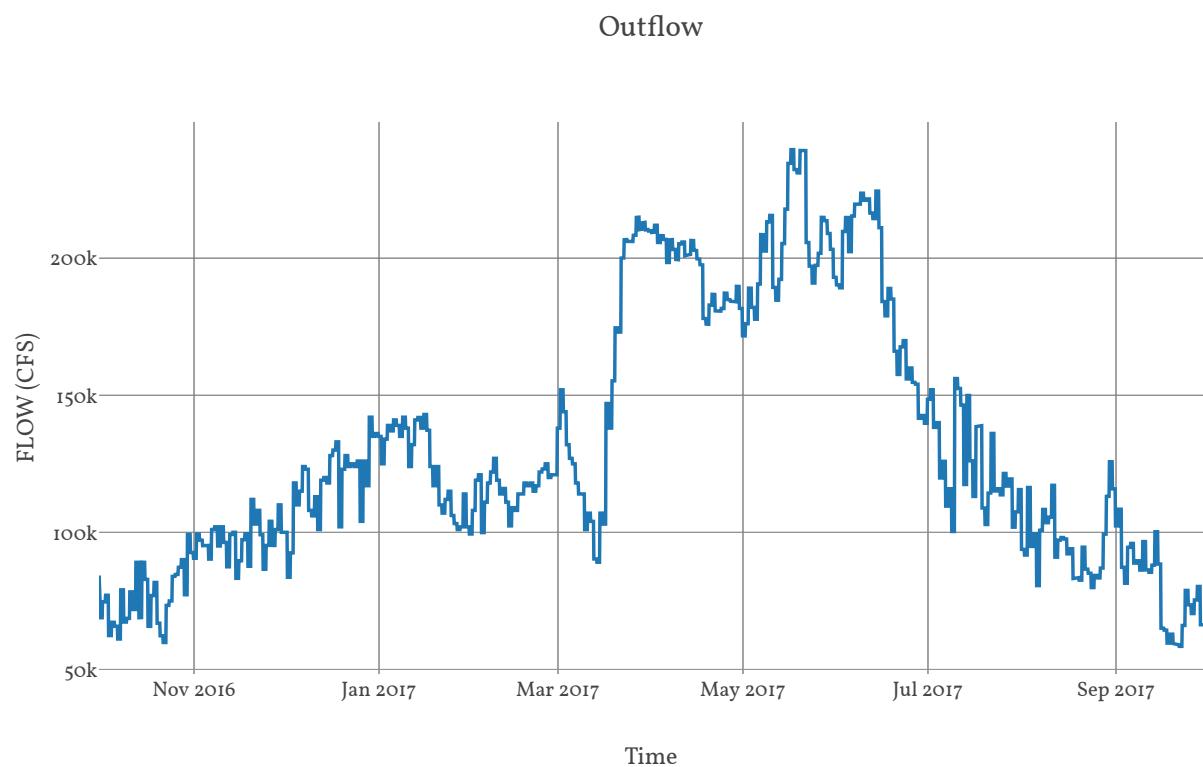
Precipitation Loss



Junction : ChiefJoseph_IN

Observed Hydrograph : Chief Joseph In

Downstream : Chief Joseph

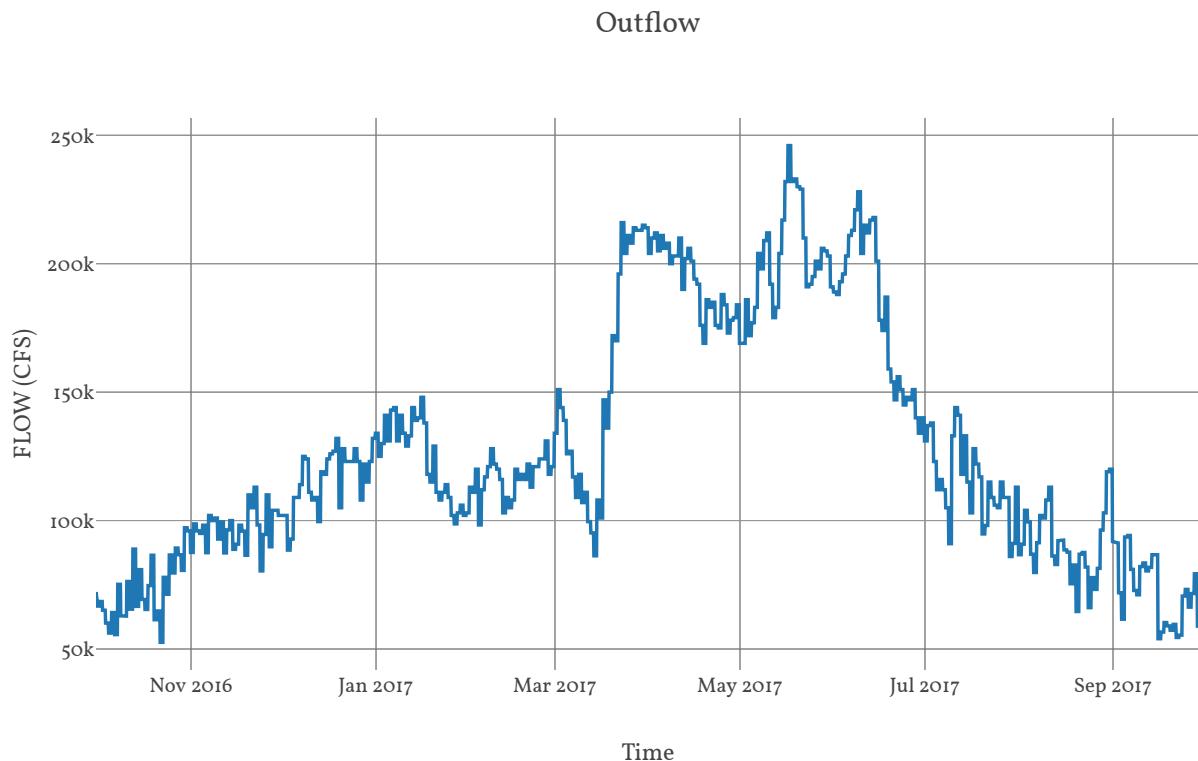


Reservoir : ChiefJoseph

Quality Method : Unspecified

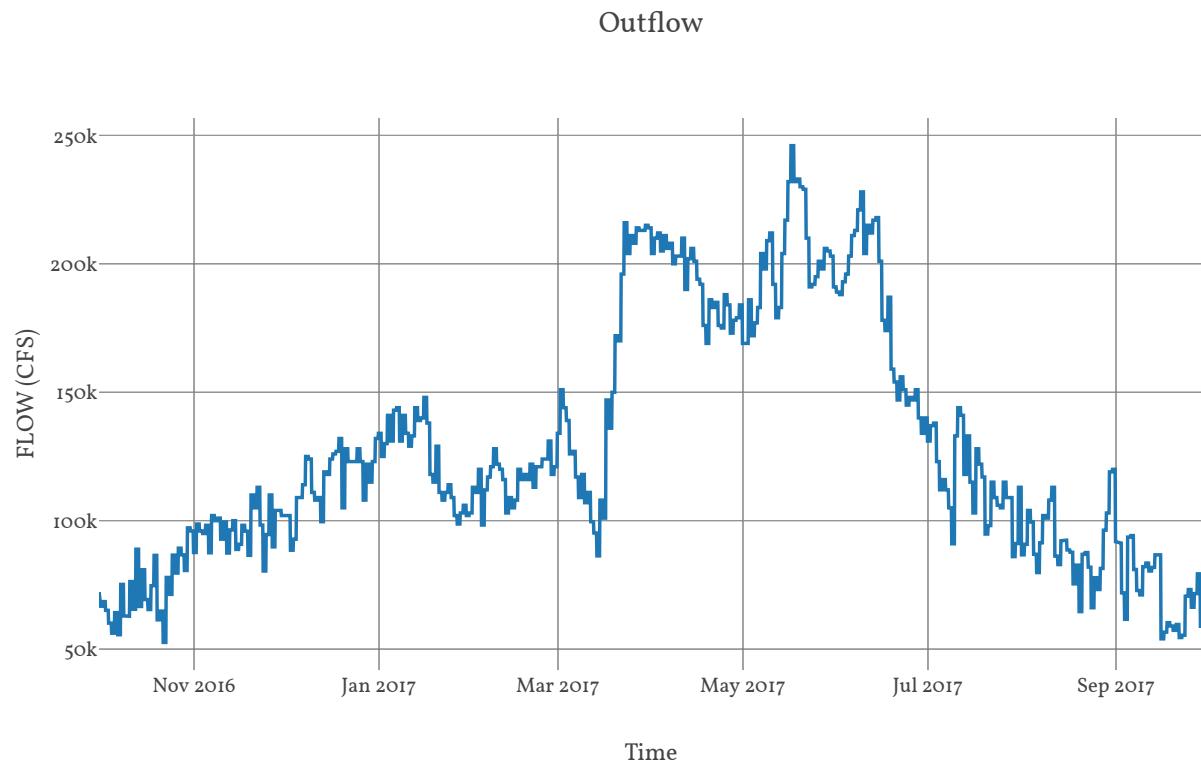
Method : Specified Outflow

Downstream : ChiefJoseph_OUT



Junction : ChiefJoseph_OUT

Downstream : MidColumbia_RO75



Reach : MidColumbia_Ro75

Loss Method : None

Downstream : OkanoganRv_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : PasaytenRv_So10

Area : 218.39

Latitude : 48.93

Longitude : -120.57

Downstream : Pasayten Ab Calcite

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.II
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	7.73
Storage Coefficient	7.73

Baseflow

Method

Linear Reservoir

Baseflow Layer List

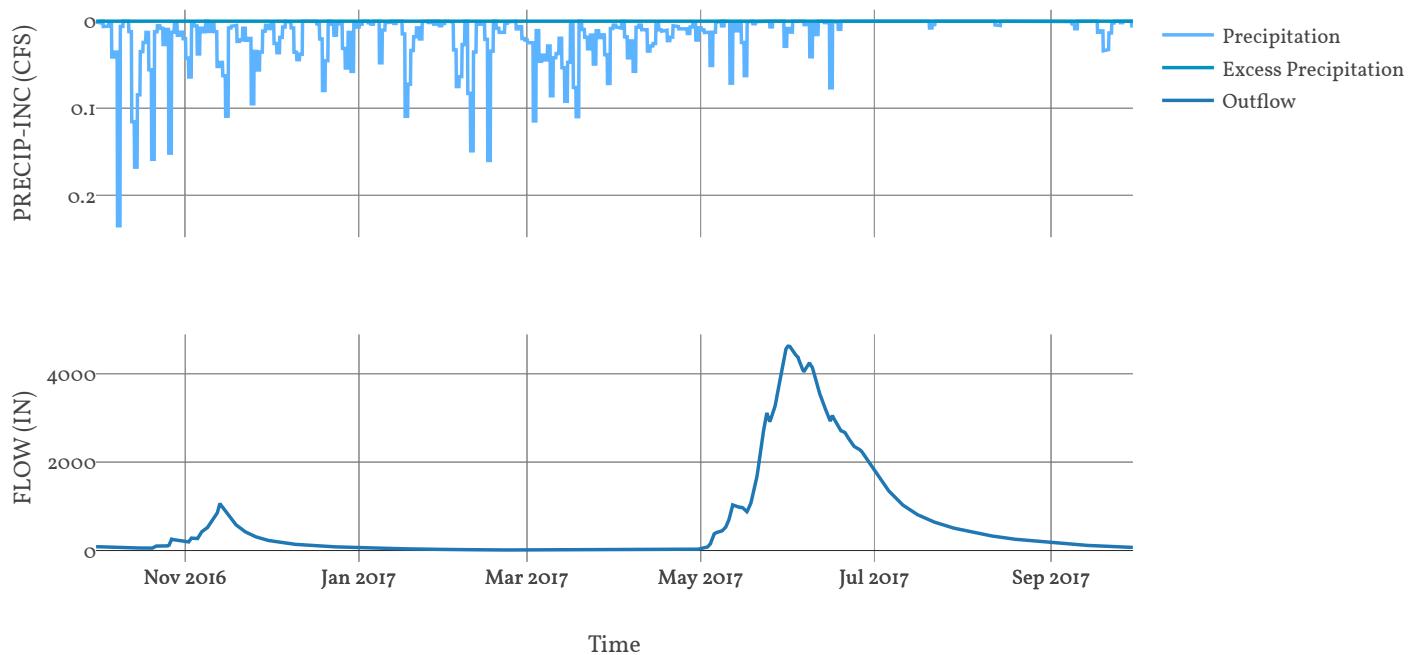
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	154.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.4
	Layer Number	2
	Storage Coefficient	773
	Number Steps	1

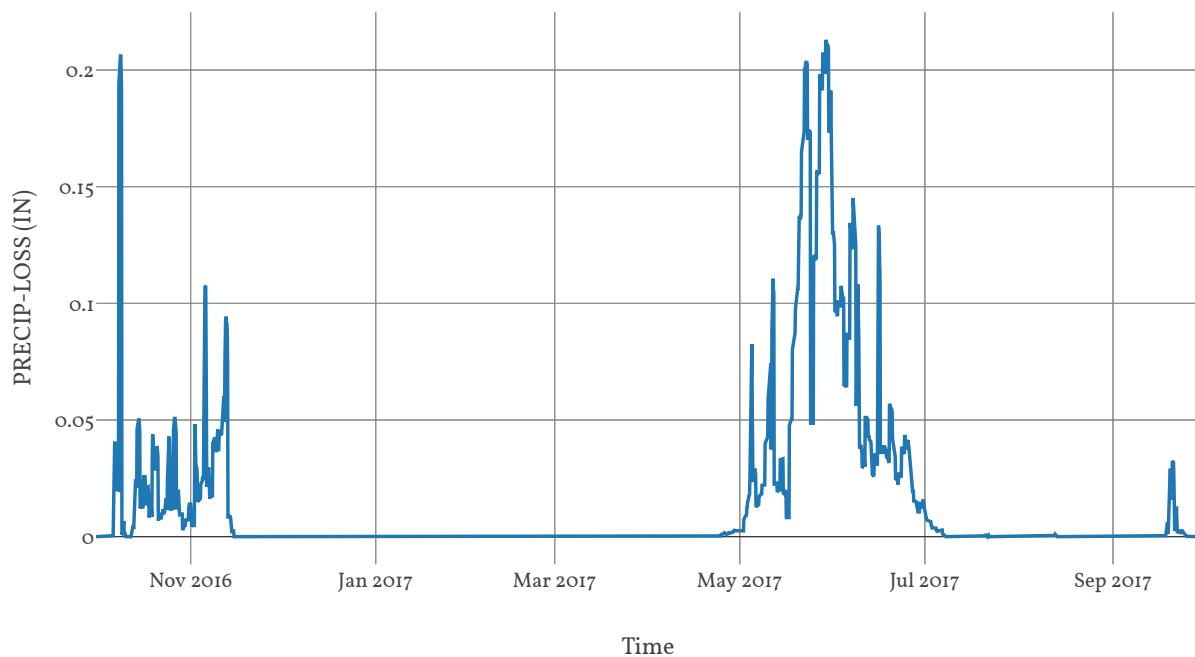
Statistics

Name	Value	Unit
Baseflow Volume	414023.81	Ac-ft
Precipitation Volume	566392.68	Ac-ft
Loss Volume	506734.64	Ac-ft
Excess Volume	558.02	Ac-ft

Precipitation and Outflow



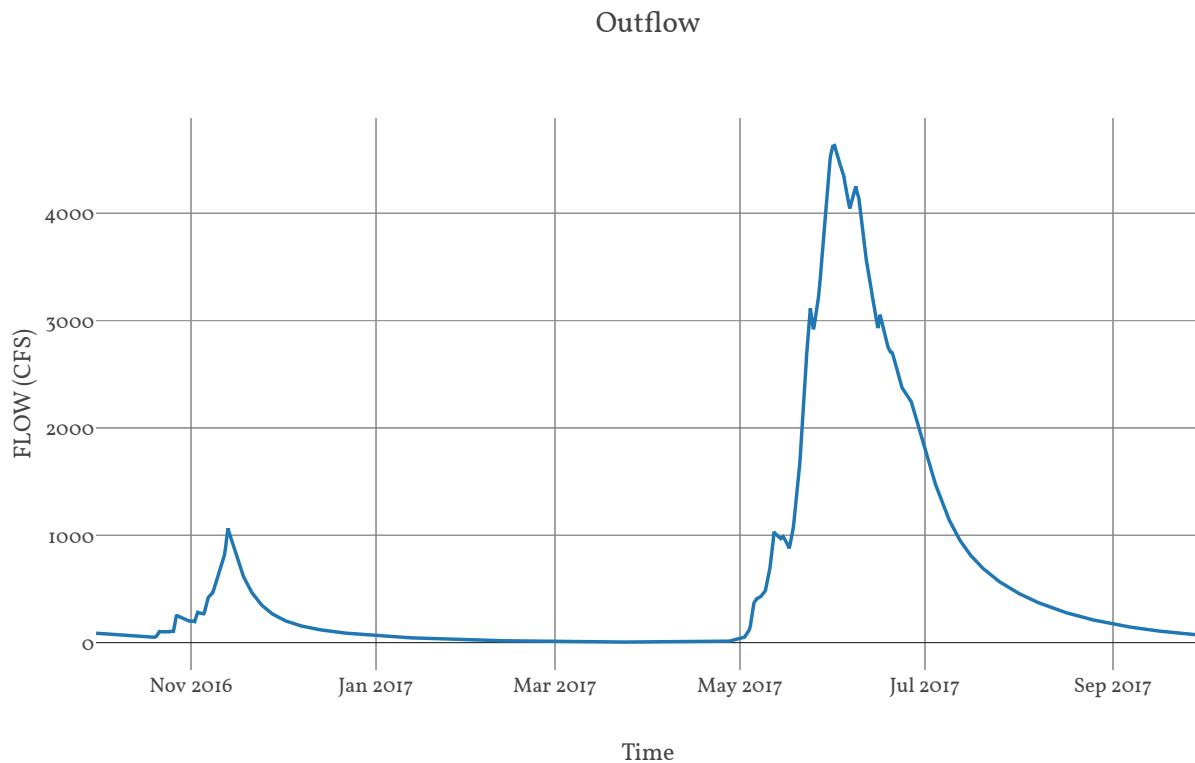
Precipitation Loss



Junction : PasaytenAbCalcite

Observed Hydrograph : Pasayten river above calcite

Downstream : PasaytenRv_ROIO



Reach : PasaytenRv_Ro10

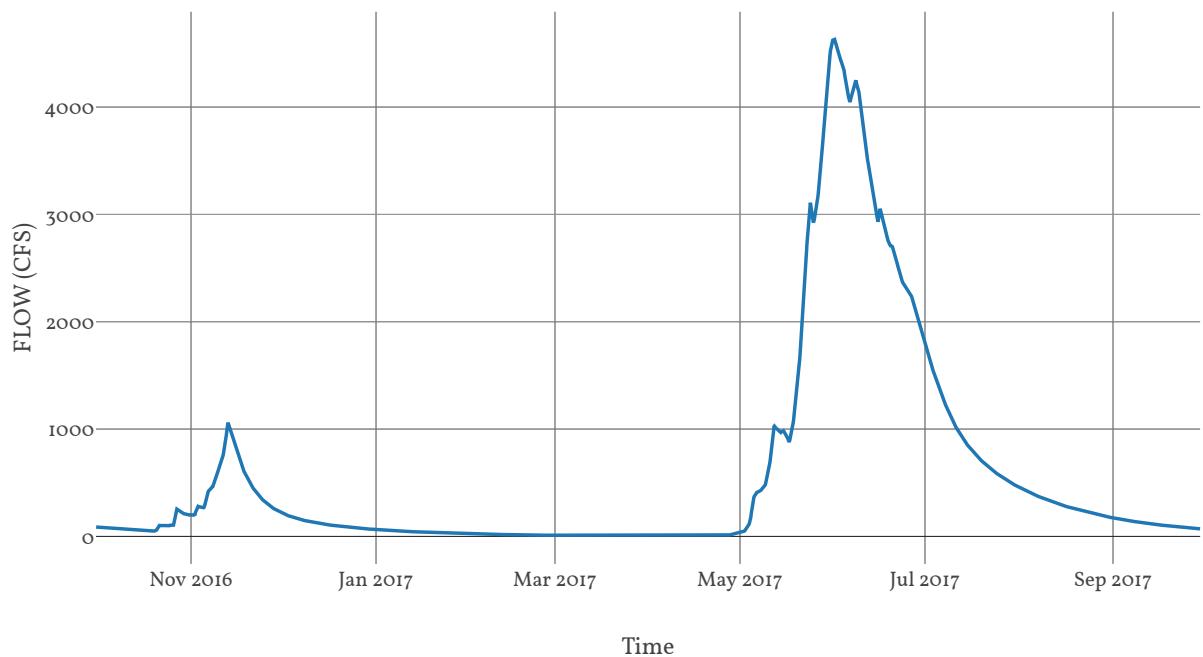
Loss Method : None

Downstream : PasaytenRv_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	1
	Length
	25796
	Max Depth Difference
	0
	Left Mannings N
	0.15

Outflow



Subbasin : Similkameen_So50

Area : 157.67

Latitude : 49.05

Longitude : -120.77

Downstream : Sim Ab Goodfellow

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.13
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.22
Storage Coefficient	5.22

Baseflow

Method

Linear Reservoir

Baseflow Layer List

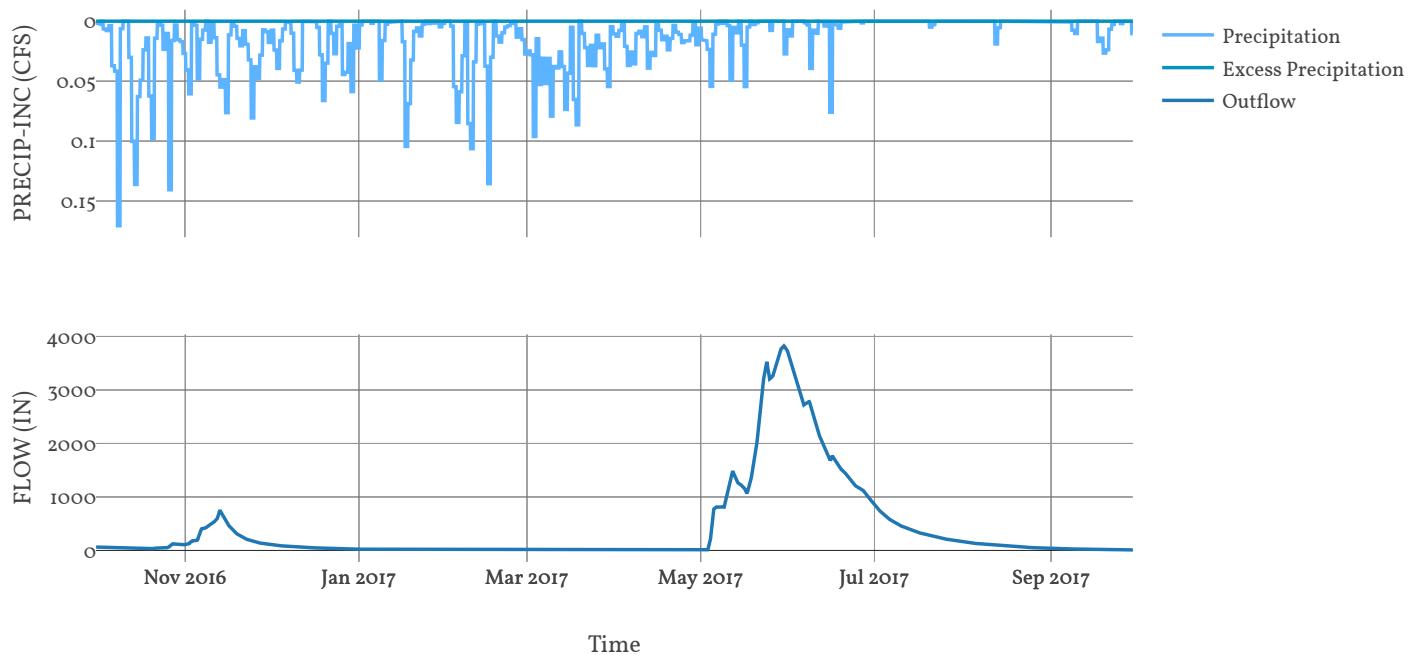
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	104.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.4
	Layer Number	2
	Storage Coefficient	522
	Number Steps	1

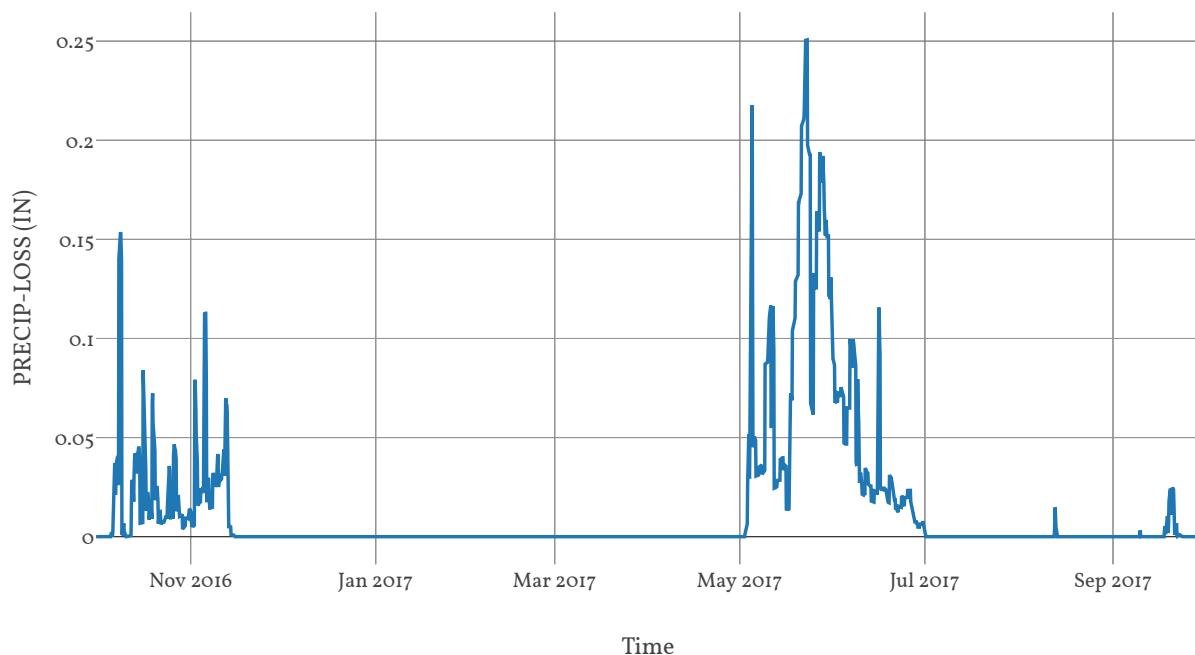
Statistics

Name	Value	Unit
Baseflow Volume	282236.88	Ac-ft
Precipitation Volume	392447.07	Ac-ft
Loss Volume	347215.89	Ac-ft
Excess Volume	451.97	Ac-ft

Precipitation and Outflow

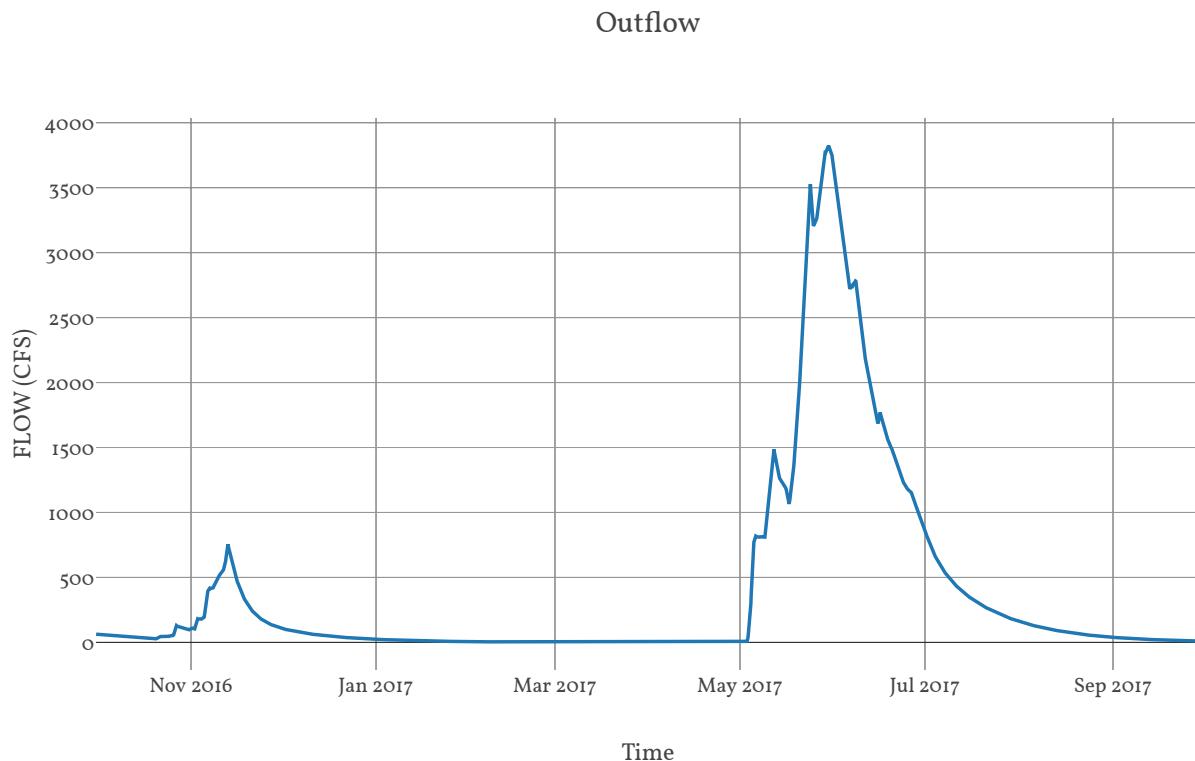


Precipitation Loss



Junction : SimAbGoodfellow

Observed Hydrograph : Similkameen river above good
Downstream : Similkameen_Ro45



Reach : Similkameen_Ro45

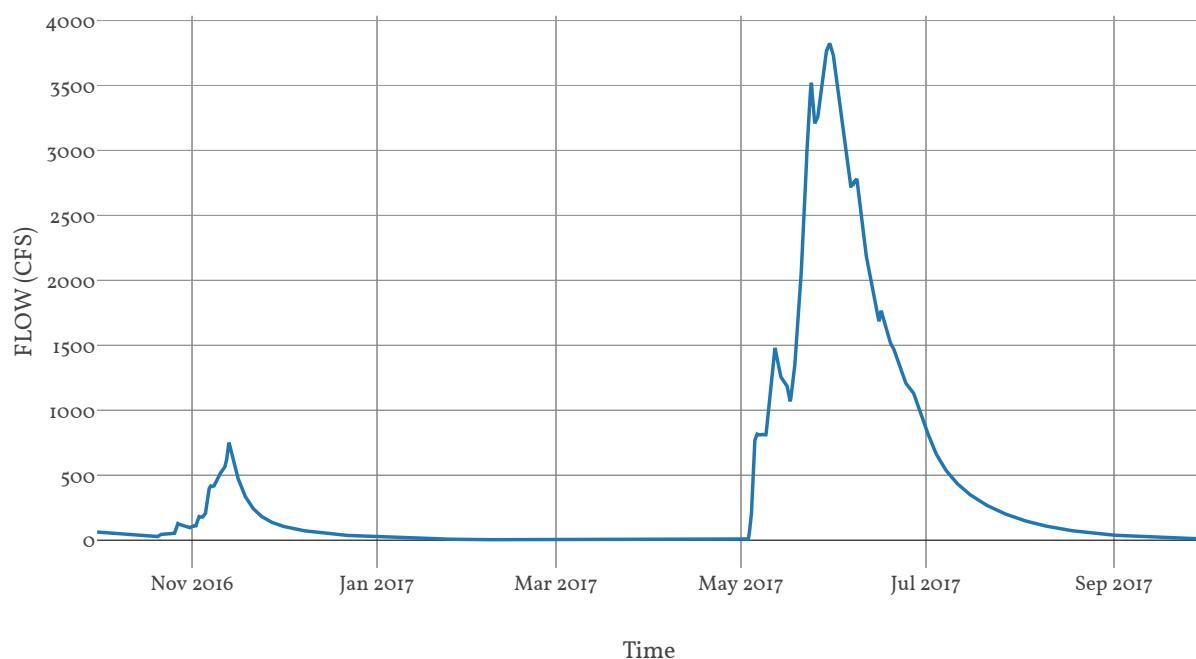
Loss Method : None

Downstream : PasaytenRv_CF

Route

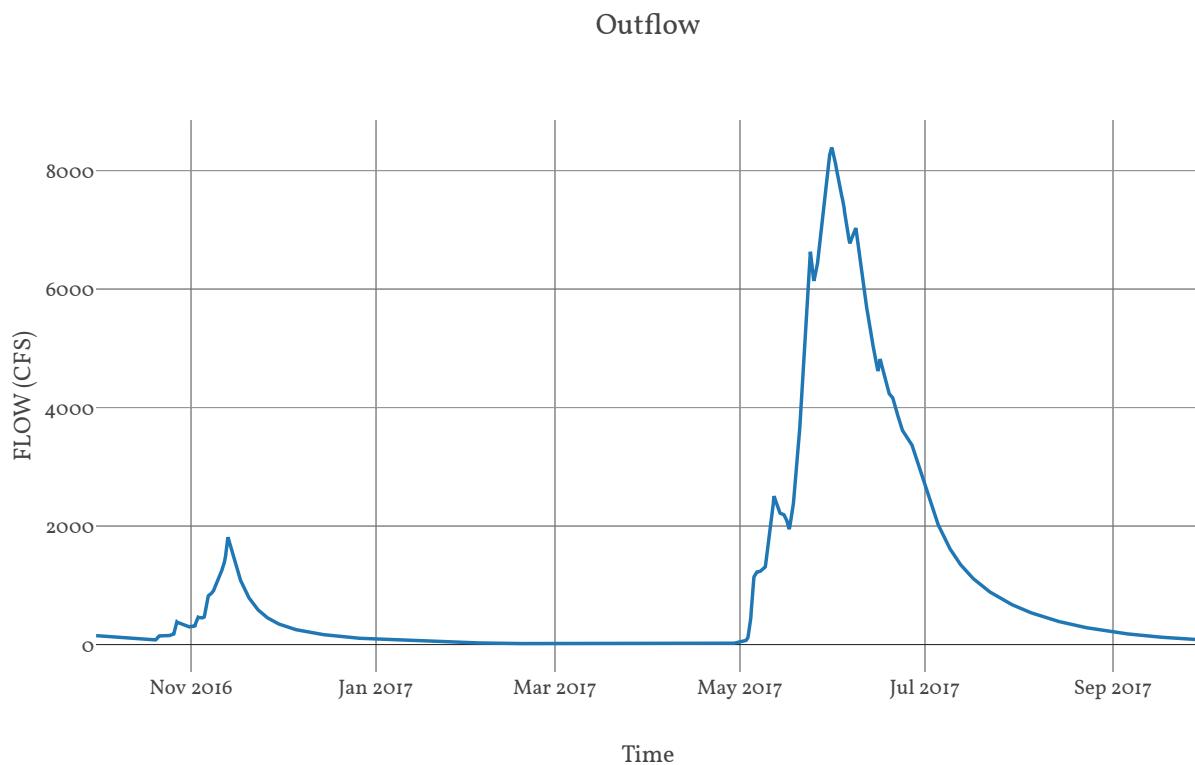
Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	
Channel Mannings N	0.04
Nvalue Ratio	1
Length	37194
Max Depth Difference	0
Left Mannings N	0.15
Channel Type	Eight Point
Mannings N	0.04
Cross Section Name	Similkameen_Ro45
Energy Slope	0
Right Mannings N	0.15

Outflow



Junction : PasaytenRv_CF

Downstream : Similkameen_Ro40



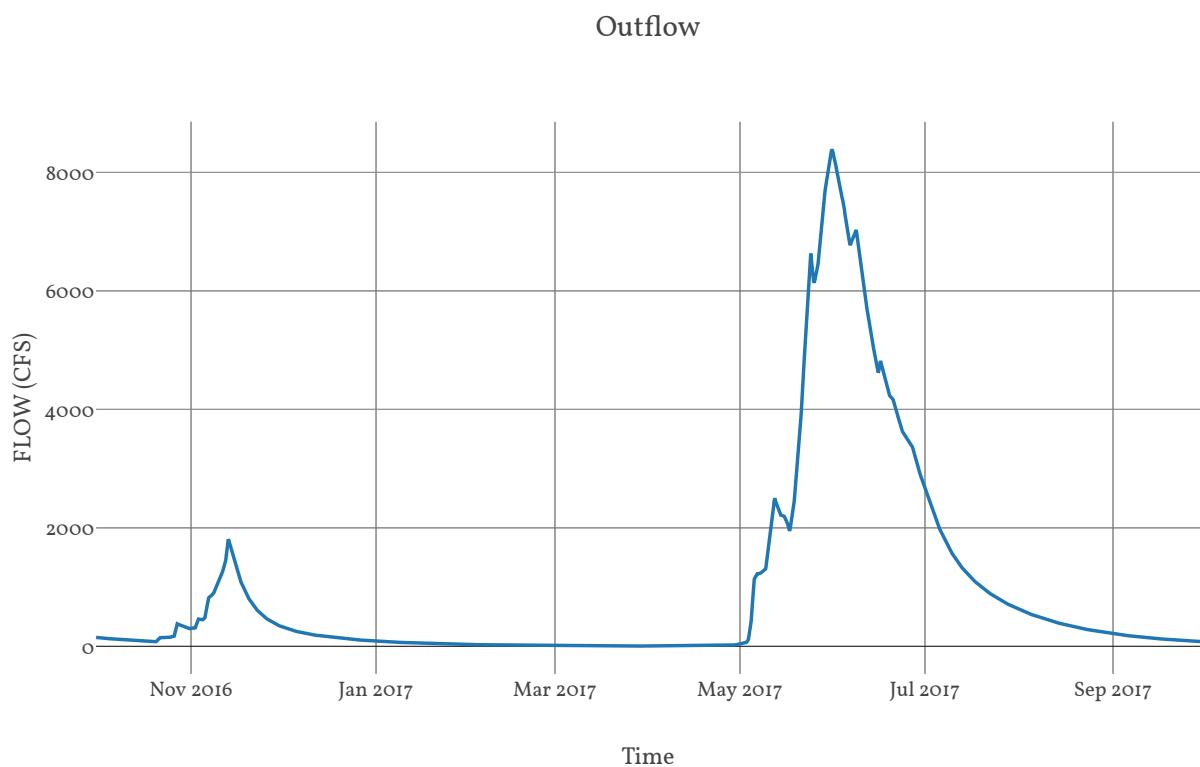
Reach : Similkameen_Ro40

Loss Method : None

Downstream : Similkameen Nr Princeton

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	1
	Length
	147511
	Max Depth Difference
	0
	Left Mannings N
	0.15



Subbasin : Similkameen_So4o

Area : 323.71

Latitude : 49.24

Longitude : -120.61

Downstream : Similkameen Nr Princeton

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.1
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	9.86
Storage Coefficient	9.86

Baseflow

Method

Linear Reservoir

Baseflow Layer List

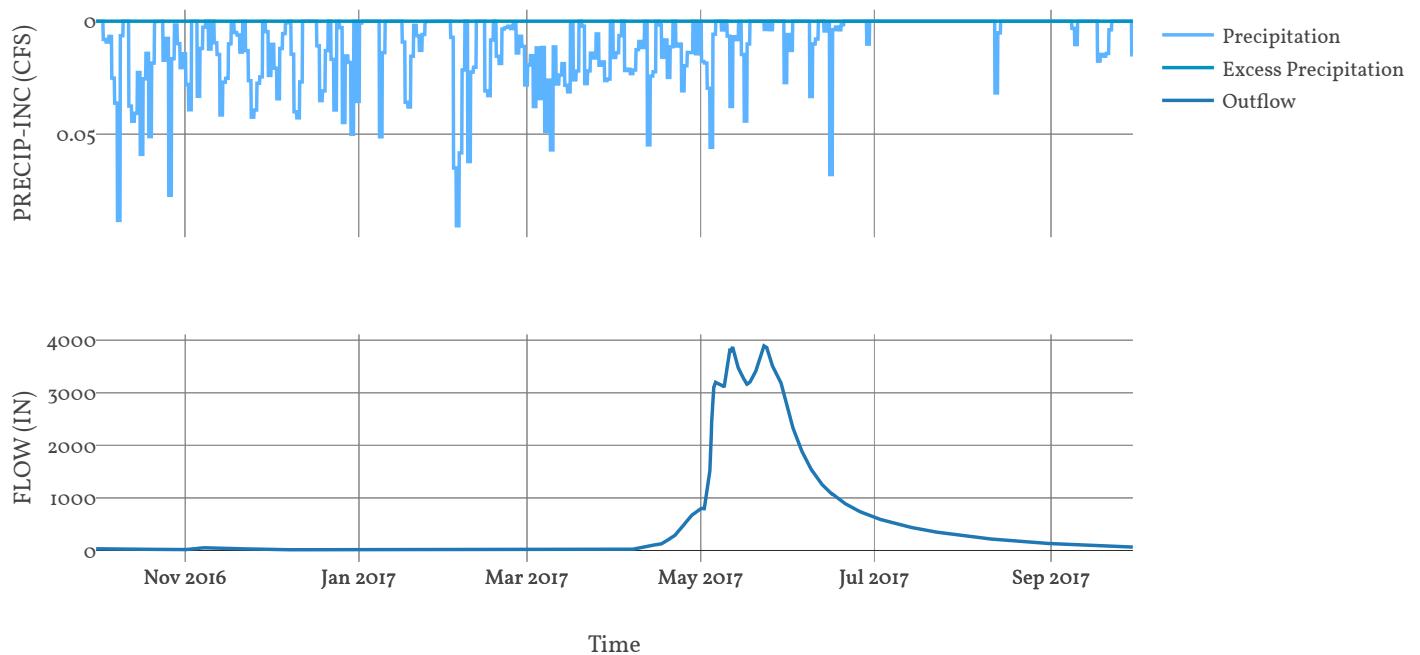
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	197.2
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	986
	Number Steps	1

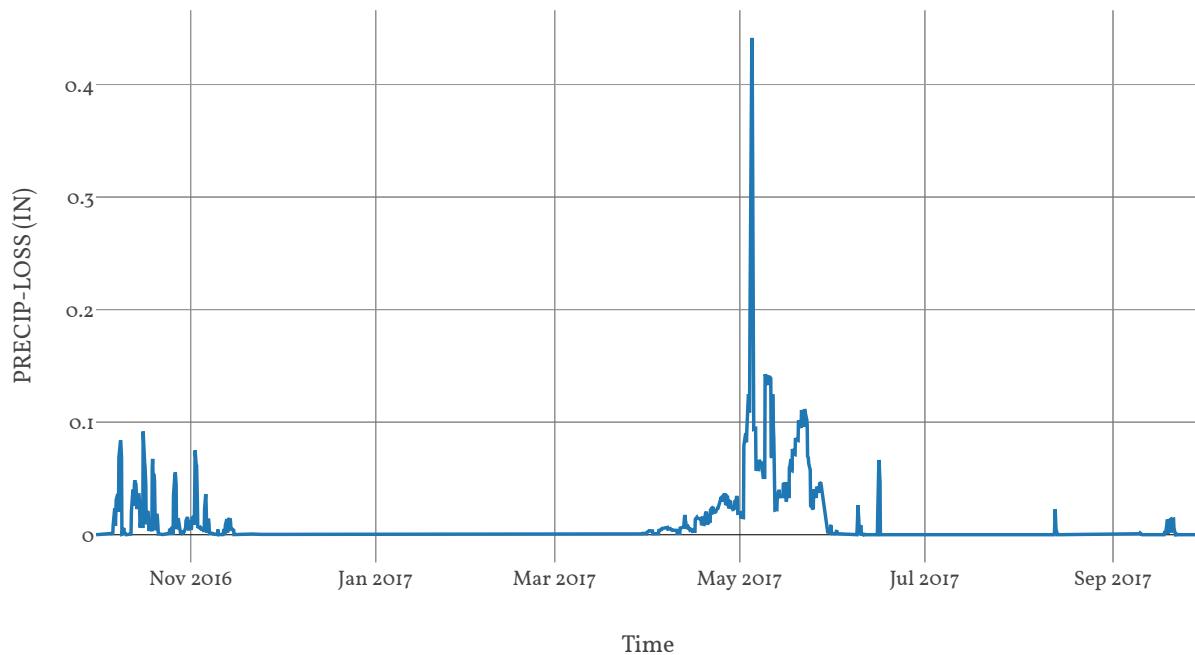
Statistics

Name	Value	Unit
Baseflow Volume	325375.06	Ac-ft
Precipitation Volume	556566.08	Ac-ft
Loss Volume	452202.65	Ac-ft
Excess Volume	452.66	Ac-ft

Precipitation and Outflow



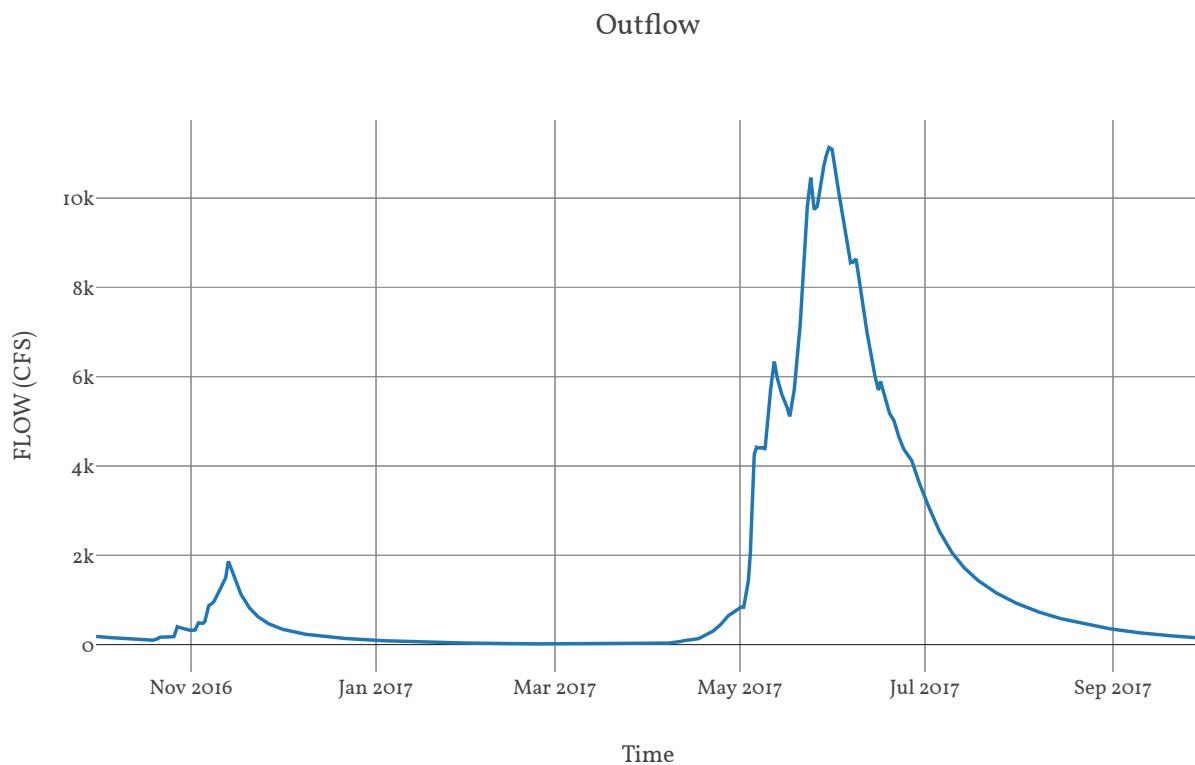
Precipitation Loss



Junction : SimilkameenNrPrinceton

Observed Hydrograph : Similkameen river at princer

Downstream : Tulameen_CF



Subbasin : TulameenRv_So20

Area : 99.36

Latitude : 49.38

Longitude : -120.99

Downstream : Tulameen Bl Vultch

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.17
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.19
Storage Coefficient	5.19

Baseflow

Method

Linear Reservoir

Baseflow Layer List

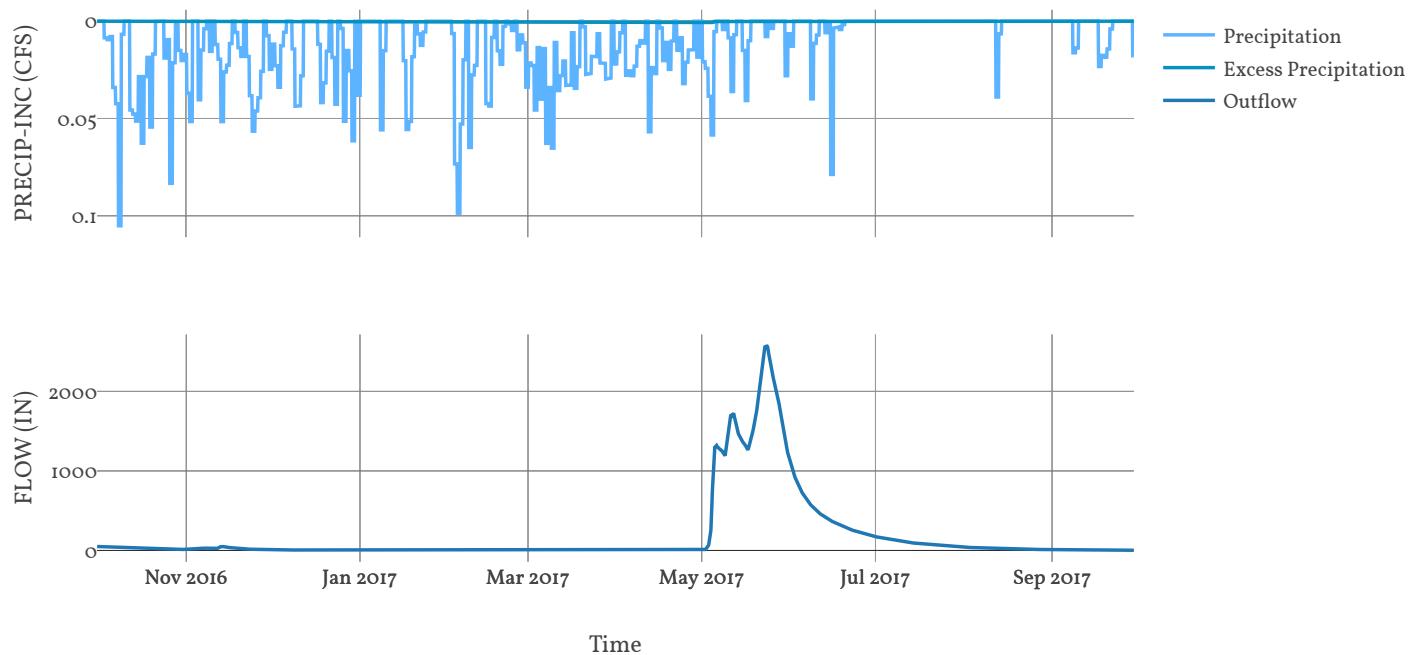
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	103.8
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.5
	Layer Number	2
	Storage Coefficient	519
	Number Steps	1

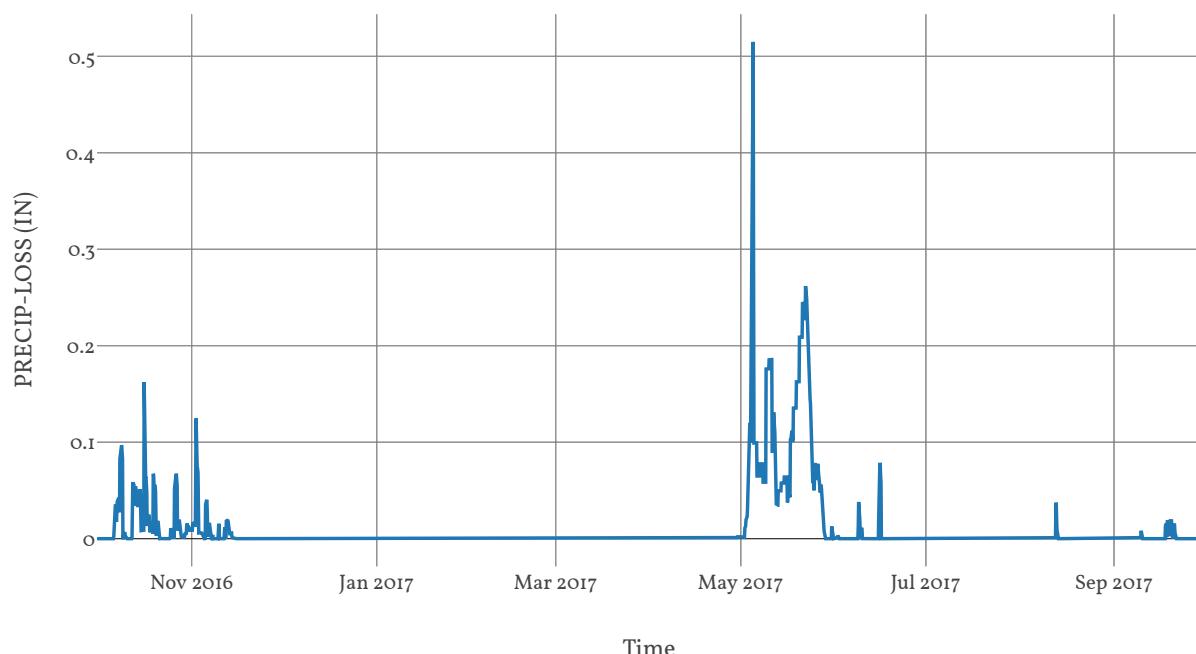
Statistics

Name	Value	Unit
Baseflow Volume	126314.91	Ac-ft
Precipitation Volume	196021.74	Ac-ft
Loss Volume	165065.59	Ac-ft
Excess Volume	281.09	Ac-ft

Precipitation and Outflow



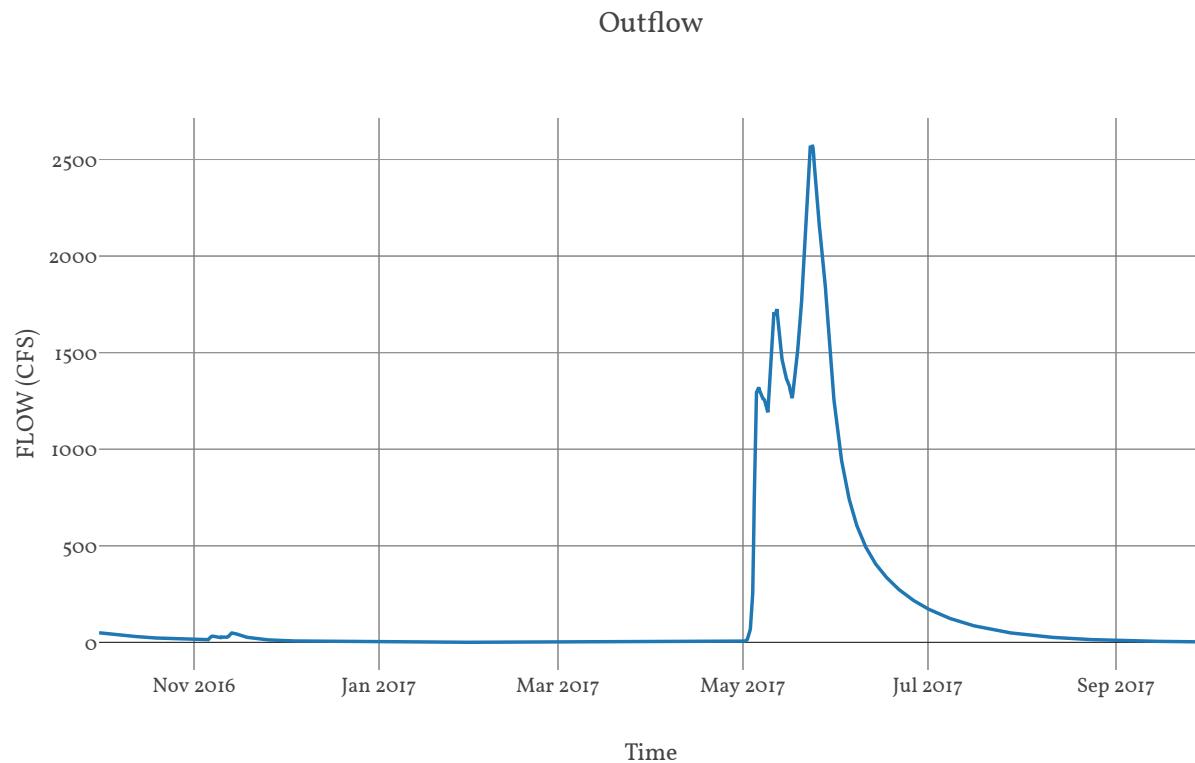
Precipitation Loss



Junction : TulameenBlVultch

Observed Hydrograph : Tulameen river below vuich c

Downstream : TulameenRv_Ro10



Reach : TulameenRv_RoIO

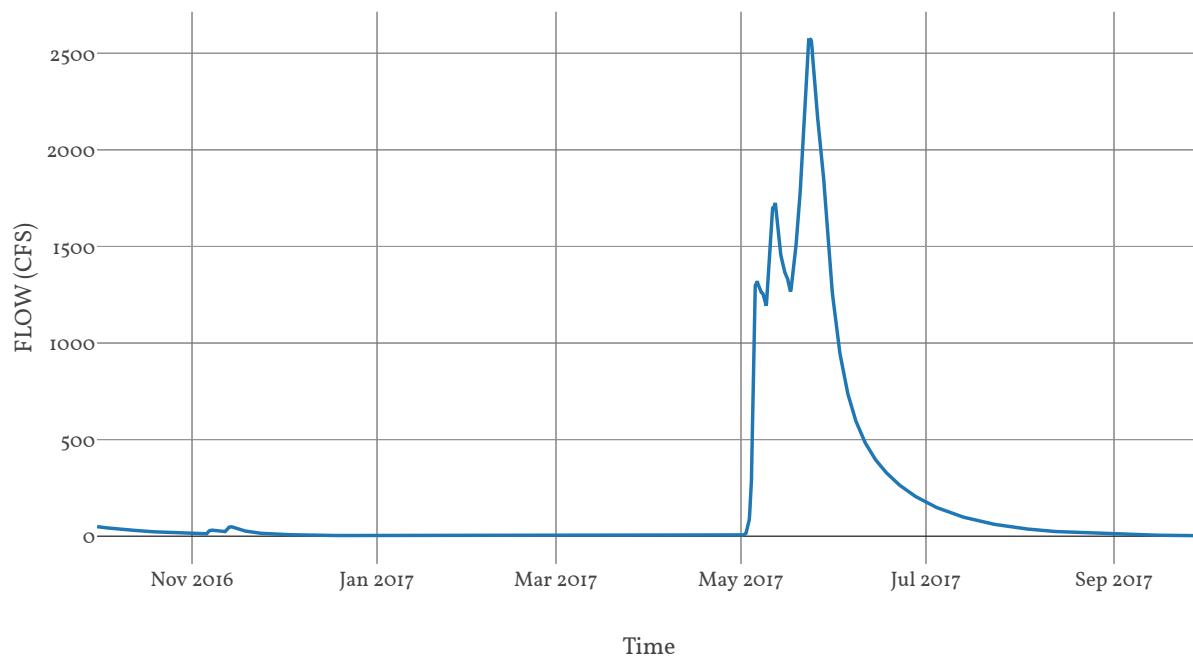
Loss Method : None

Downstream : Tulameen

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	1
	Length
	169272
	Max Depth Difference
	0
	Left Mannings N
	0.15
	Channel Type
	Eight Point
	Mannings N
	0.04
	Cross Section Name
	TulameenRv_RoIO
	Energy Slope
	0.01
	Right Mannings N
	0.15

Outflow



Subbasin : TulameenRv_So1o

Area : 586.83

Latitude : 49.61

Longitude : -120.78

Downstream : Tulameen

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.52
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	12.07
Storage Coefficient	12.07

Baseflow

Method

Linear Reservoir

Baseflow Layer List

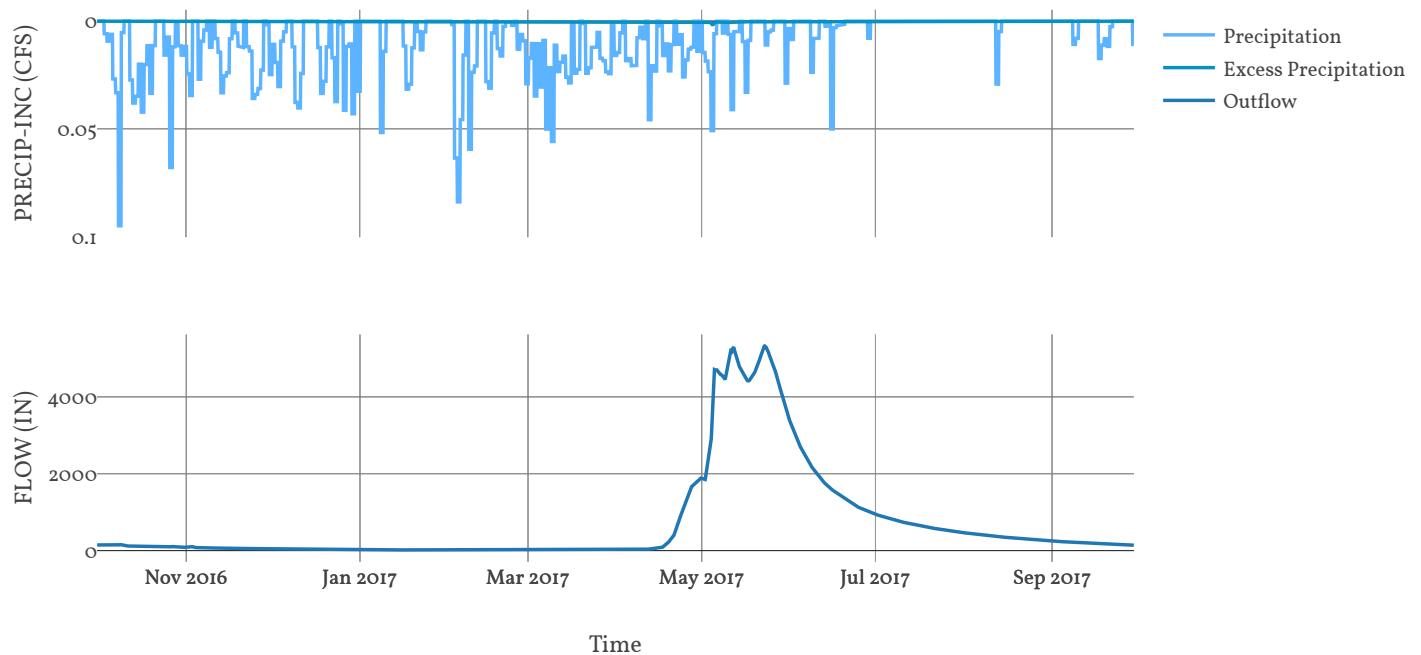
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	241.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.25
	Layer Number	2
	Storage Coefficient	1207
	Number Steps	1

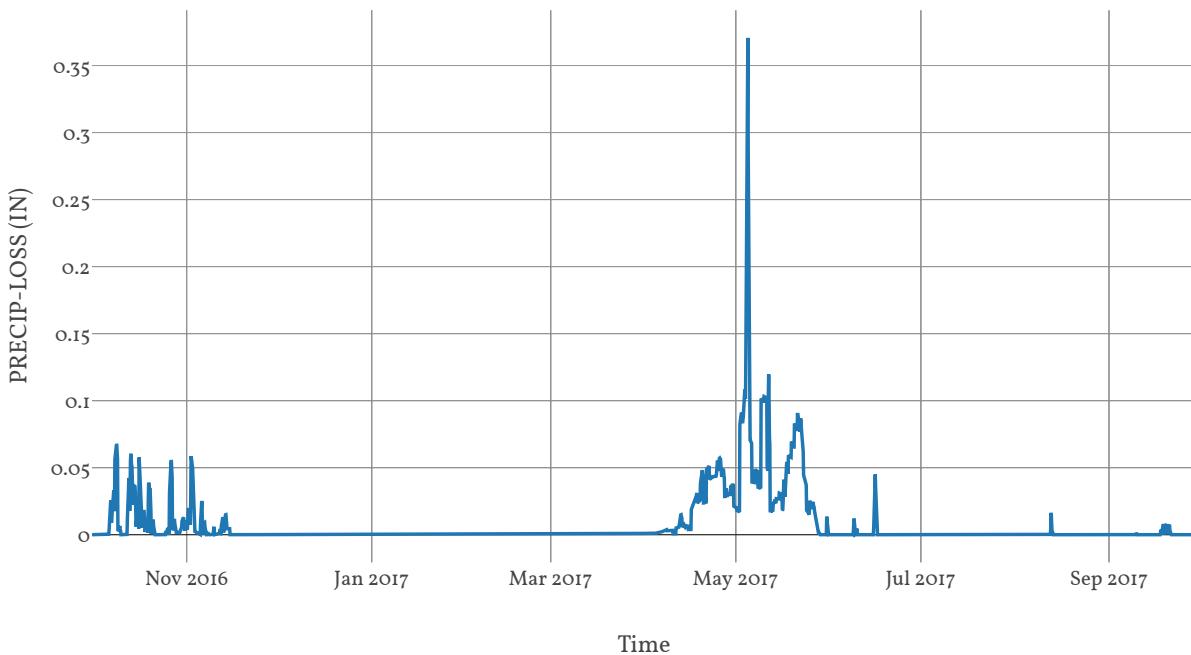
Statistics

Name	Value	Unit
Baseflow Volume	484865.89	Ac-ft
Precipitation Volume	894108.71	Ac-ft
Loss Volume	696326.49	Ac-ft
Excess Volume	3639.82	Ac-ft

Precipitation and Outflow



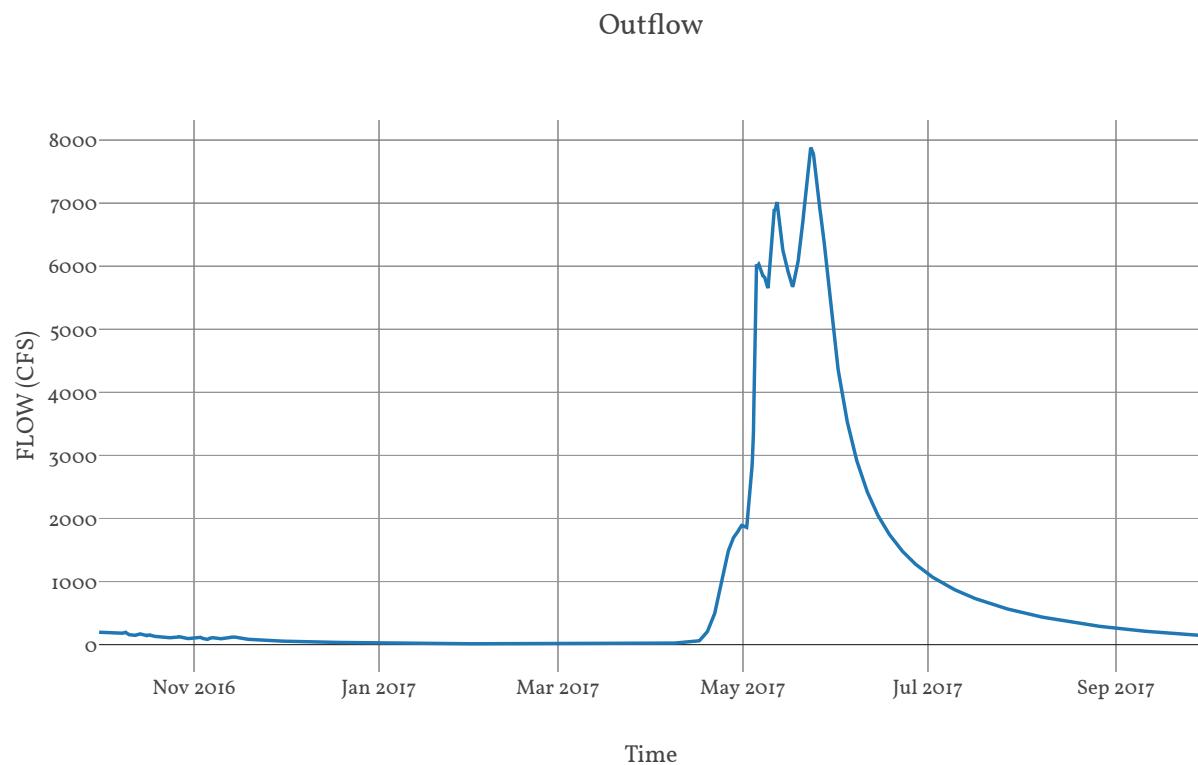
Precipitation Loss



Junction : Tulameen

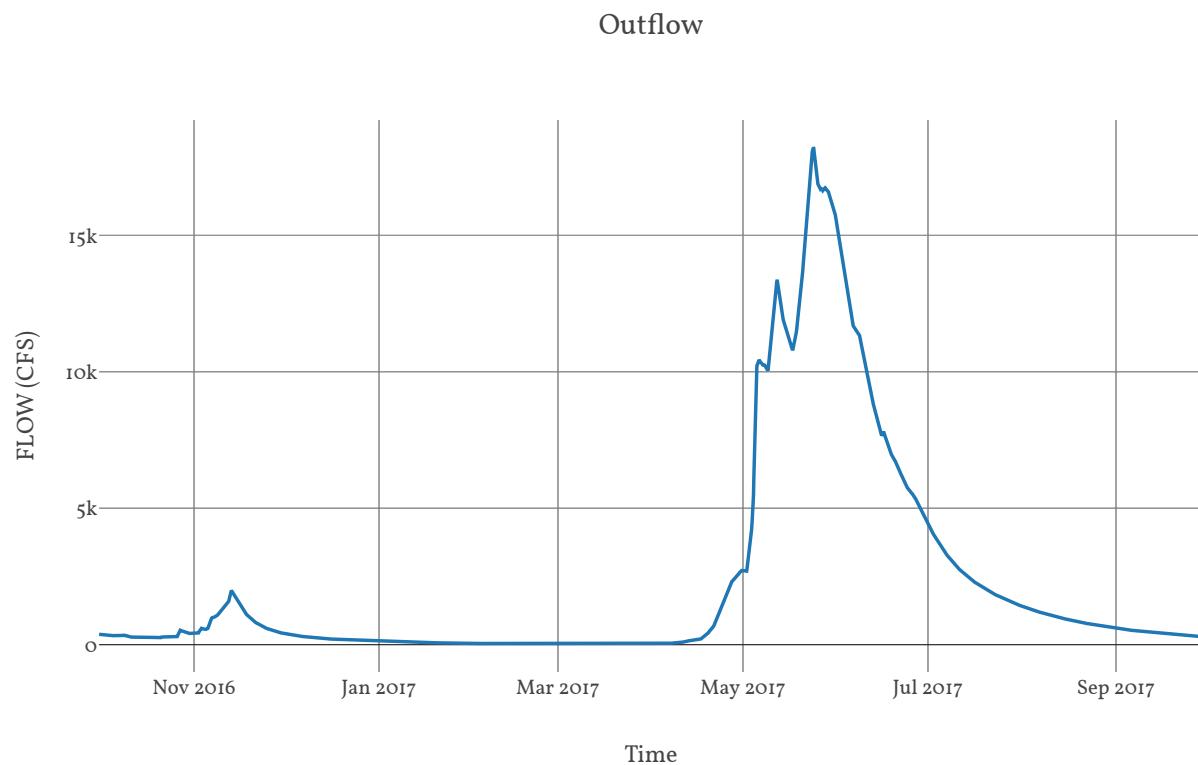
Observed Hydrograph : Tulameen river at princeton

Downstream : Tulameen_CF



Junction : Tulameen_CF

Downstream : Similkameen_R035



Reach : Similkameen_Ro35

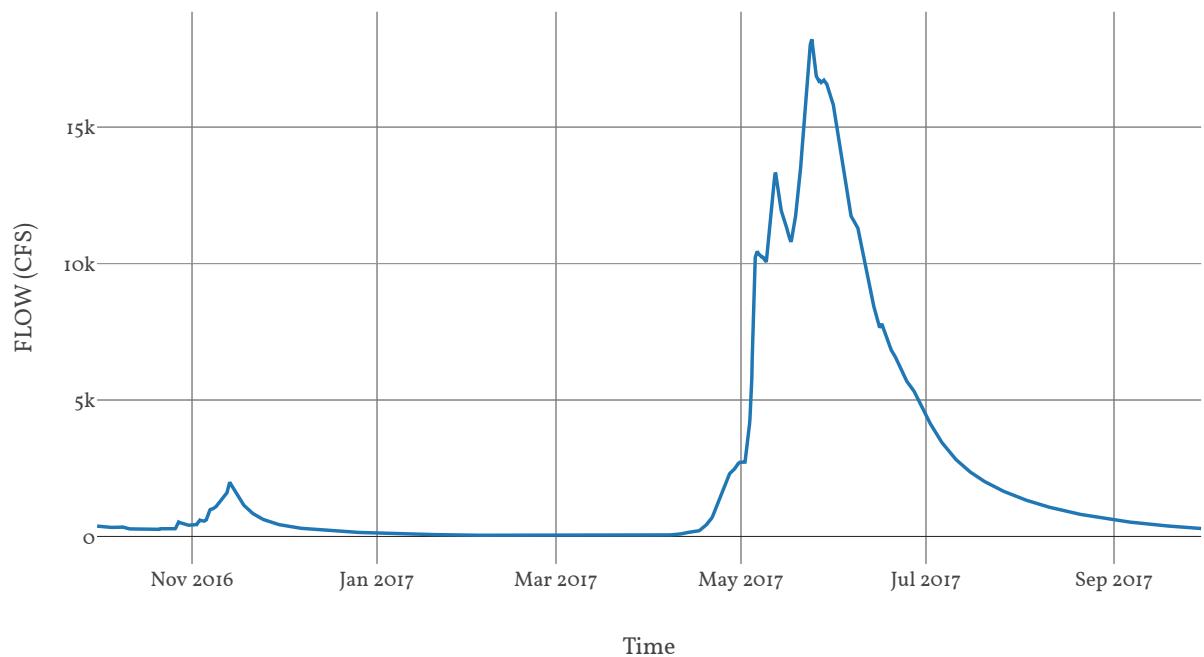
Loss Method : None

Downstream : HayesCk_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 37943
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name Similkameen_Ro35
	Energy Slope 0
	Right Mannings N 0.15

Outflow



Subbasin : SiwashCk_Soro

Area : 97.92

Latitude : 49.8

Longitude : -120.31

Downstream : Siwash Ck

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.8
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	6.13
Storage Coefficient	6.13

Baseflow

Method

Linear Reservoir

Baseflow Layer List

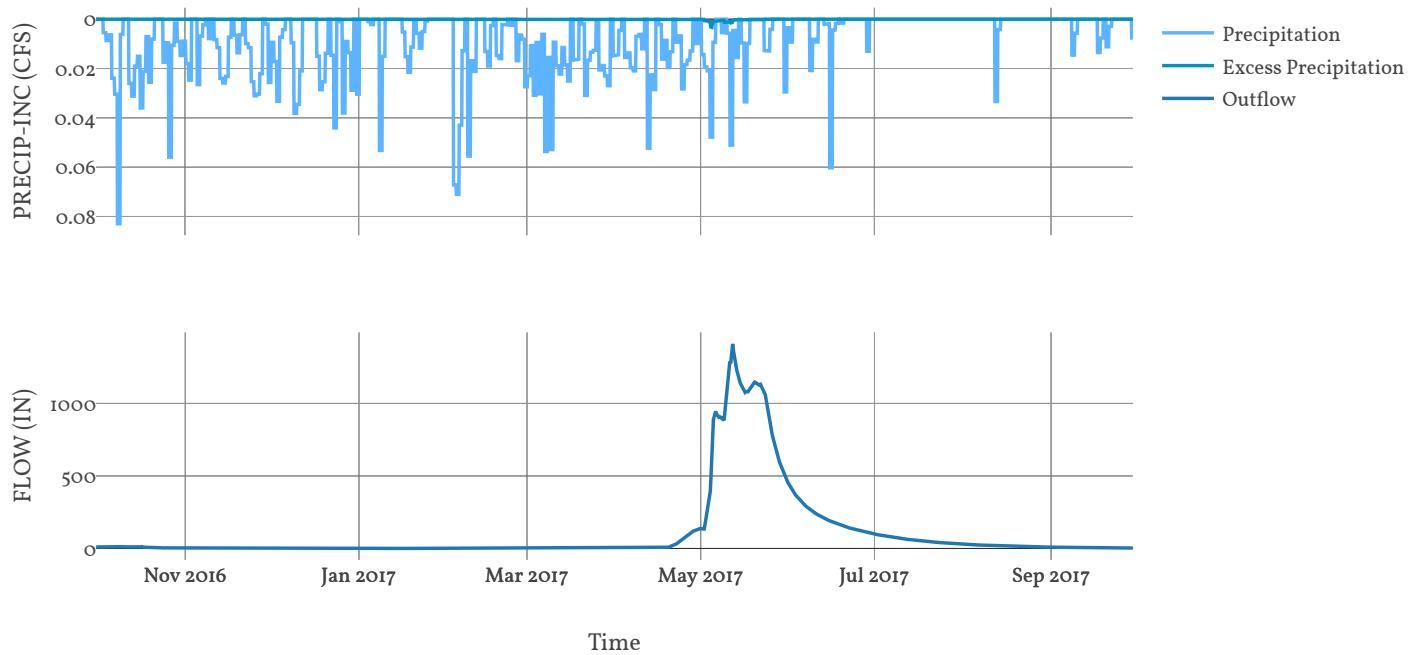
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	122.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	613
	Number Steps	1

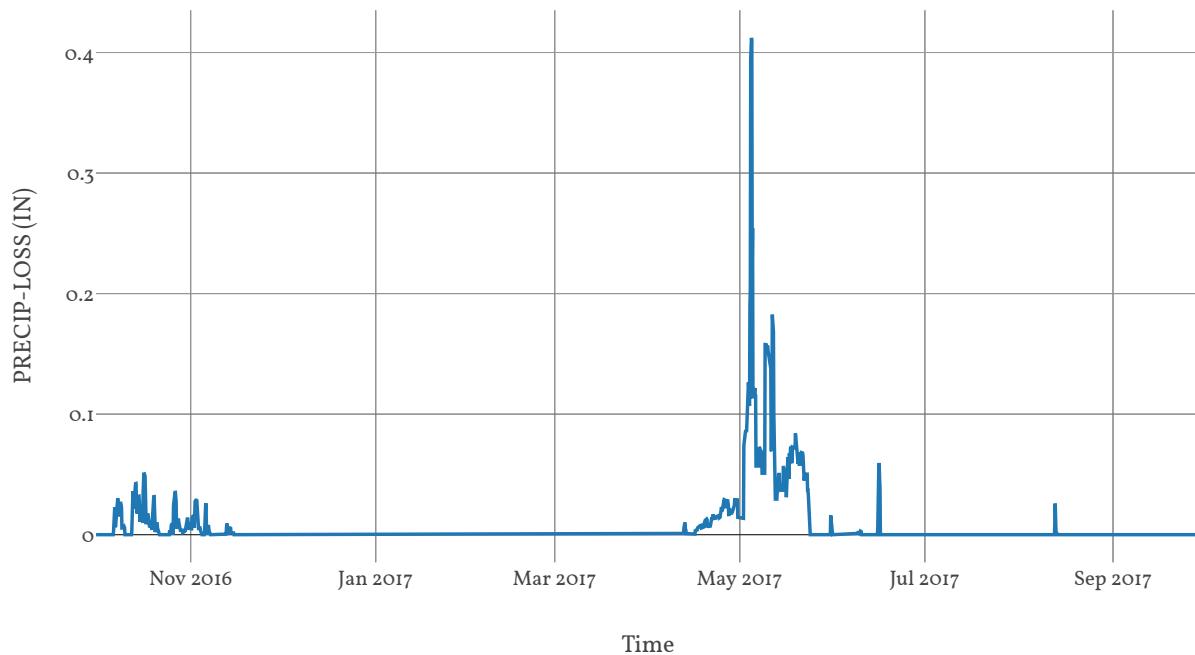
Statistics

Name	Value	Unit
Baseflow Volume	72737.16	Ac-ft
Precipitation Volume	138978.4	Ac-ft
Loss Volume	106903.24	Ac-ft
Excess Volume	862.12	Ac-ft

Precipitation and Outflow



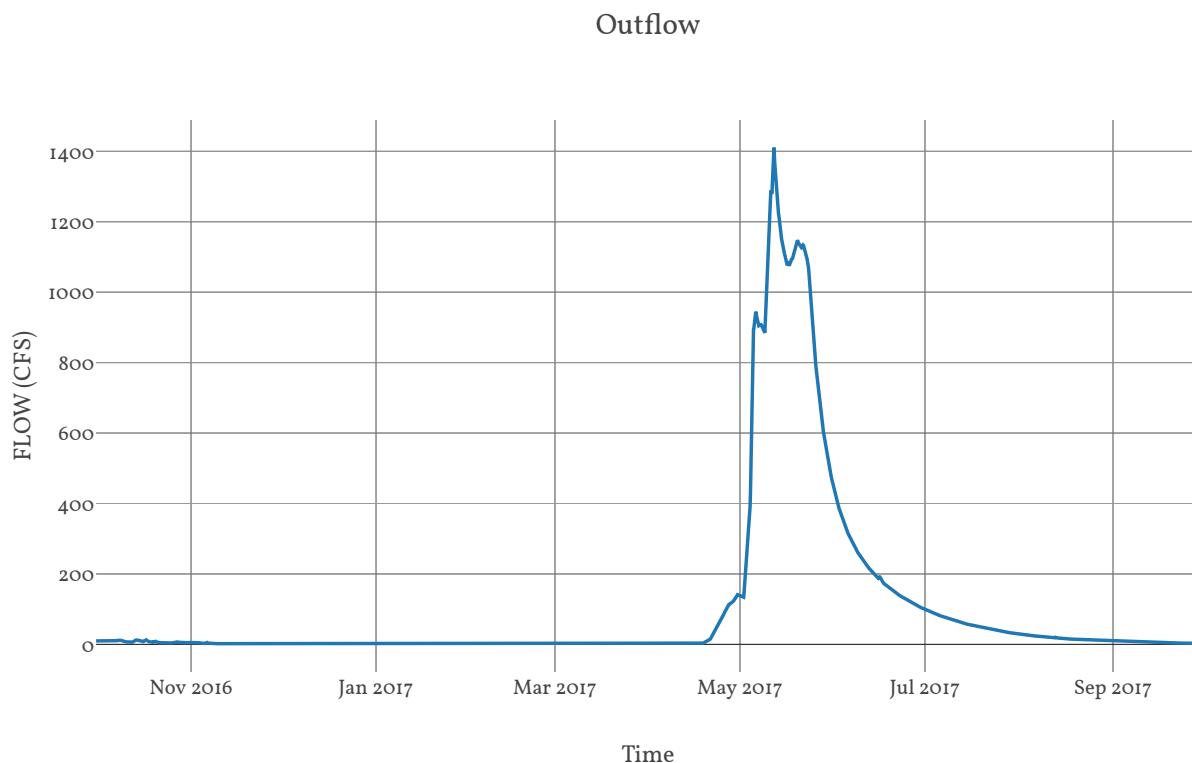
Precipitation Loss



Junction : SiwashCk

Observed Hydrograph : Siwash creek near princeton

Downstream : HayesCk_R010



Reach : HayesCk_Ro10

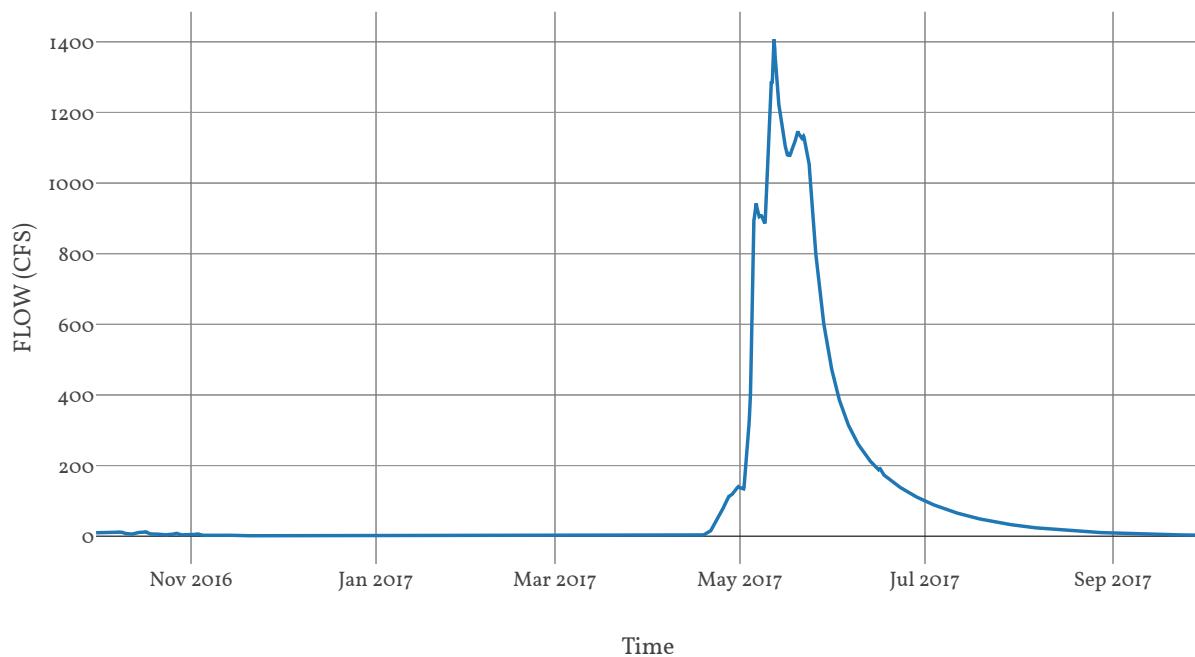
Loss Method : None

Downstream : HayesCk_CF

Route

Space Time Method	Auto Dx Dt																				
Method	Muskingum Cunge																				
Maximum Depth Iterations	20																				
Index Parameter Type	Index Flow																				
Initial Variable	Combined Inflow																				
Index Flow	20000																				
Channel Type	Eight Point																				
Maximum Route Step Iterations	30																				
Channel	<table><tr><td>Channel Mannings N</td><td>0.04</td></tr><tr><td>Nvalue Ratio</td><td>1</td></tr><tr><td>Length</td><td>97786</td></tr><tr><td>Max Depth Difference</td><td>0</td></tr><tr><td>Left Mannings N</td><td>0.15</td></tr><tr><td>Channel Type</td><td>Eight Point</td></tr><tr><td>Mannings N</td><td>0.04</td></tr><tr><td>Cross Section Name</td><td>HayesCk_Ro10</td></tr><tr><td>Energy Slope</td><td>0.01</td></tr><tr><td>Right Mannings N</td><td>0.15</td></tr></table>	Channel Mannings N	0.04	Nvalue Ratio	1	Length	97786	Max Depth Difference	0	Left Mannings N	0.15	Channel Type	Eight Point	Mannings N	0.04	Cross Section Name	HayesCk_Ro10	Energy Slope	0.01	Right Mannings N	0.15
Channel Mannings N	0.04																				
Nvalue Ratio	1																				
Length	97786																				
Max Depth Difference	0																				
Left Mannings N	0.15																				
Channel Type	Eight Point																				
Mannings N	0.04																				
Cross Section Name	HayesCk_Ro10																				
Energy Slope	0.01																				
Right Mannings N	0.15																				

Outflow



Subbasin : Similkameen_So30

Area : 464.97

Latitude : 49.54

Longitude : -120.44

Downstream : HayesCk_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.78
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	12.1
Storage Coefficient	12.1

Baseflow

Method

Linear Reservoir

Baseflow Layer List

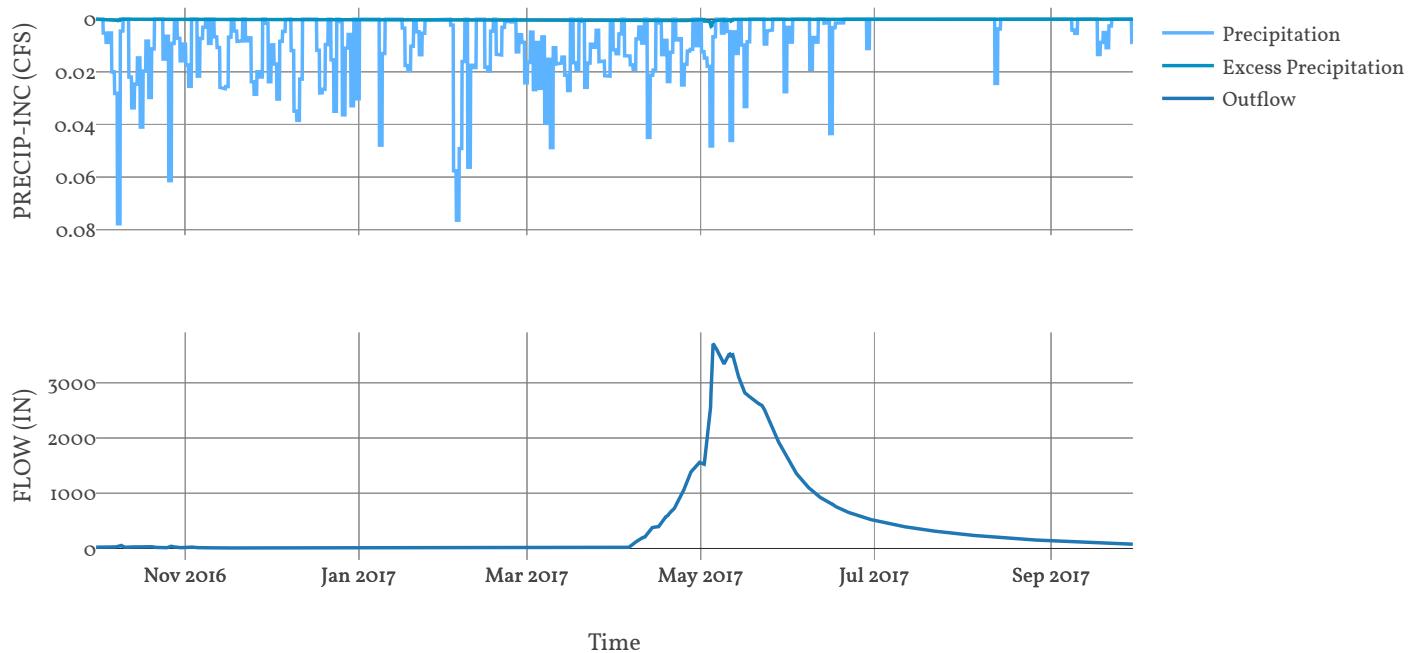
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	242
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	1210
	Number Steps	1

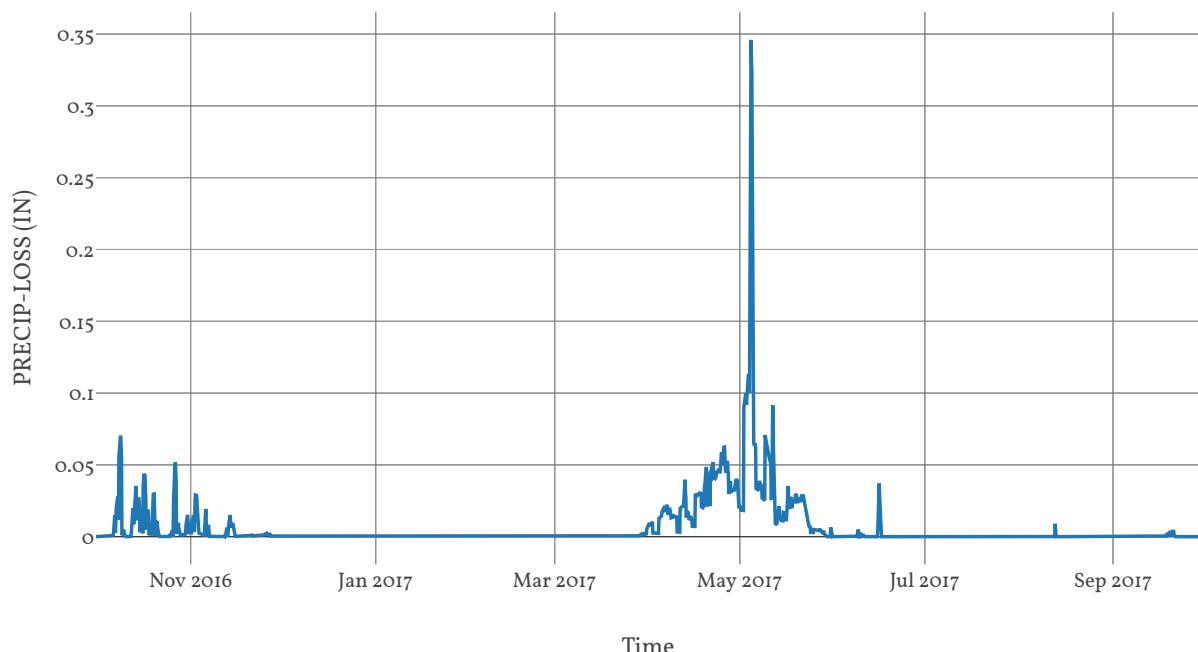
Statistics

Name	Value	Unit
Baseflow Volume	287743.65	Ac-ft
Precipitation Volume	614373.9	Ac-ft
Loss Volume	454716.35	Ac-ft
Excess Volume	3574.67	Ac-ft

Precipitation and Outflow



Precipitation Loss



Subbasin : HayesCk_SoI0

Area : 202.67

Latitude : 49.61

Longitude : -120.31

Downstream : HayesCk_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.27
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	6.87
Storage Coefficient	6.87

Baseflow

Method

Linear Reservoir

Baseflow Layer List

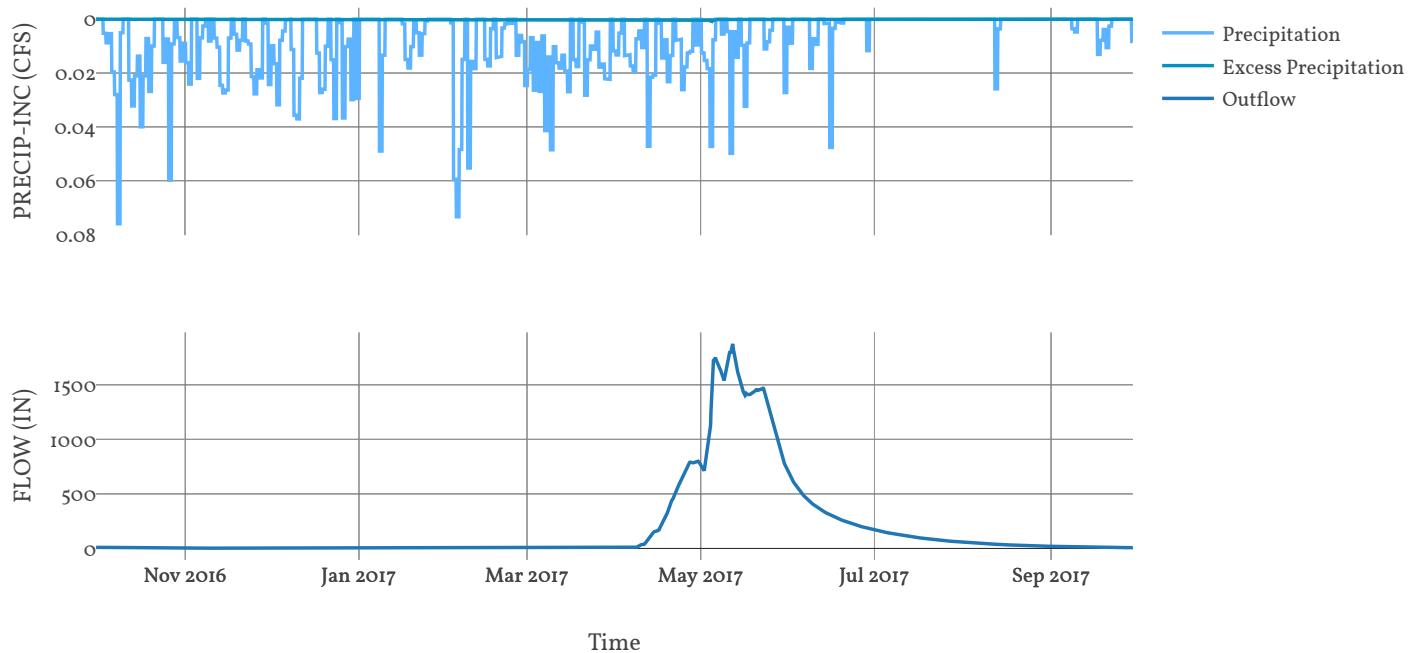
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	137.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	687
	Number Steps	1

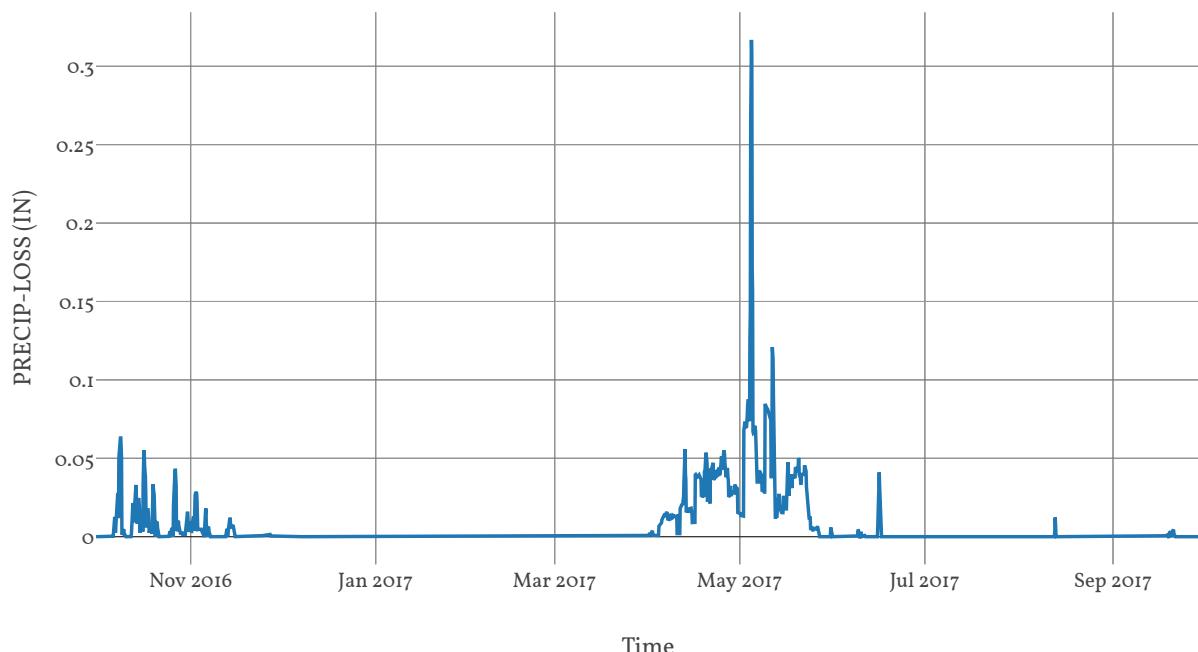
Statistics

Name	Value	Unit
Baseflow Volume	129246.84	Ac-ft
Precipitation Volume	267178.09	Ac-ft
Loss Volume	199986.23	Ac-ft
Excess Volume	541.42	Ac-ft

Precipitation and Outflow

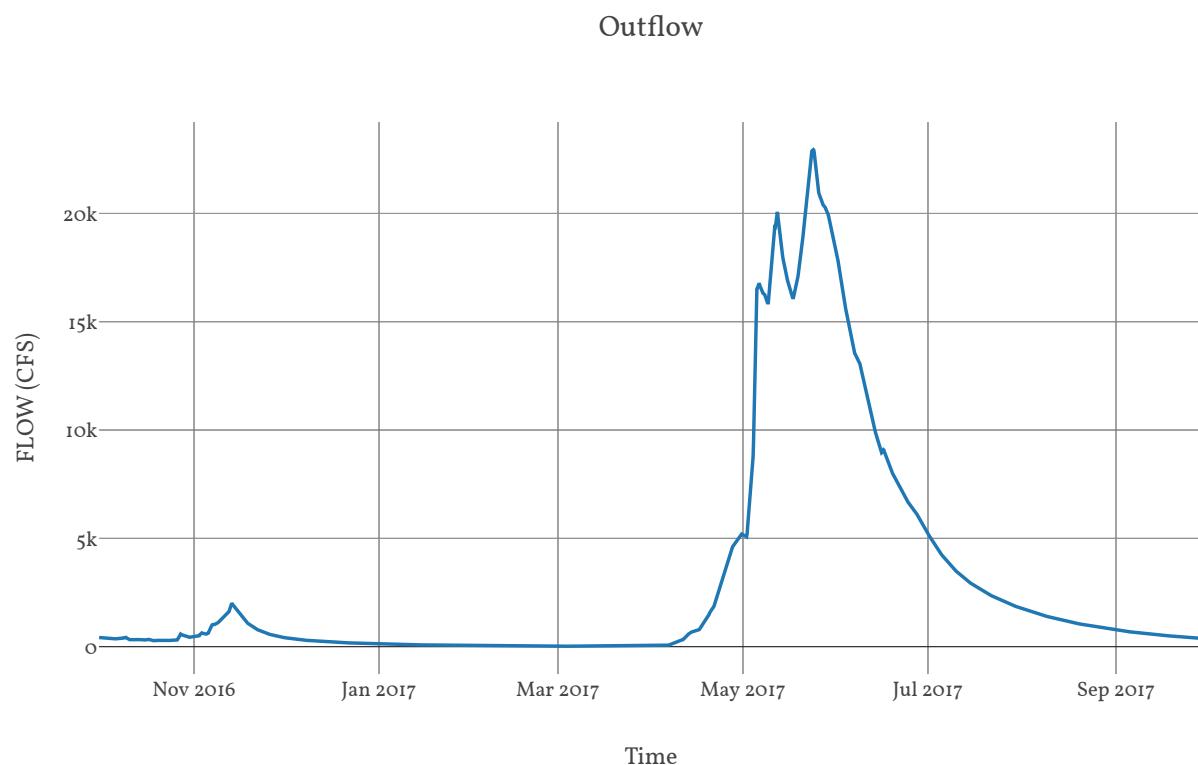


Precipitation Loss



Junction : HayesCk_CF

Downstream : Similkameen_R030



Reach : Similkameen_Ro30

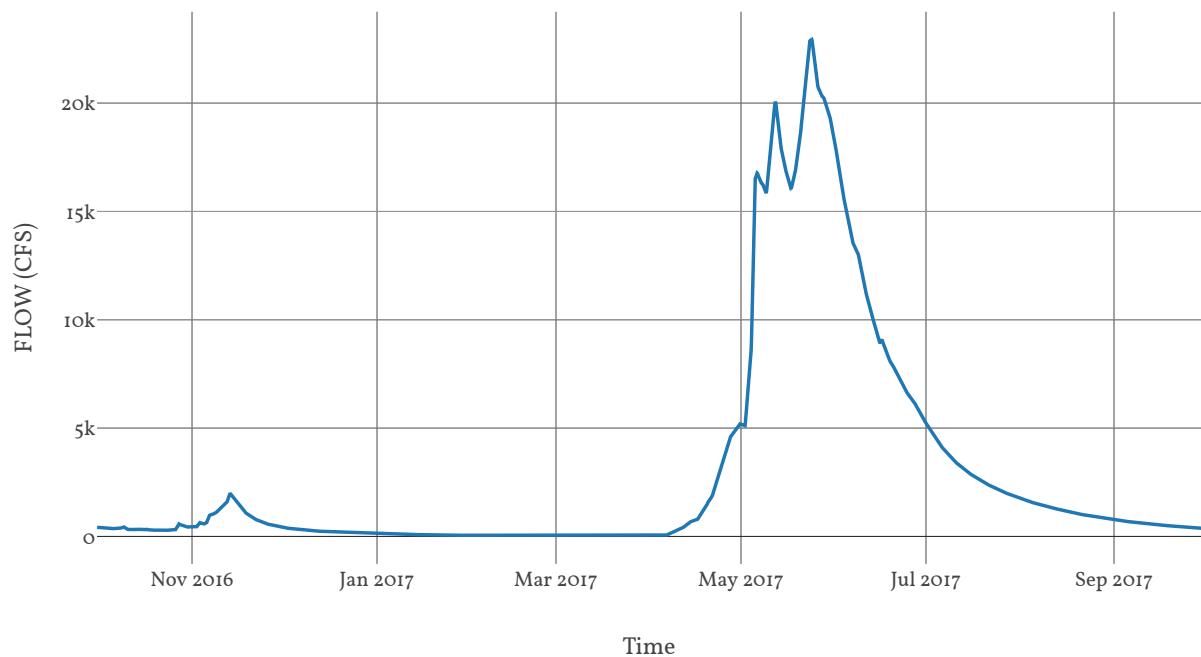
Loss Method : None

Downstream : Sim Nr Hedley

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	
Channel Mannings N	0.04
Nvalue Ratio	1
Length	69981
Max Depth Difference	0
Left Mannings N	0.15
Channel Type	Eight Point
Mannings N	0.04
Cross Section Name	Similkameen_Ro30
Energy Slope	0
Right Mannings N	0.15

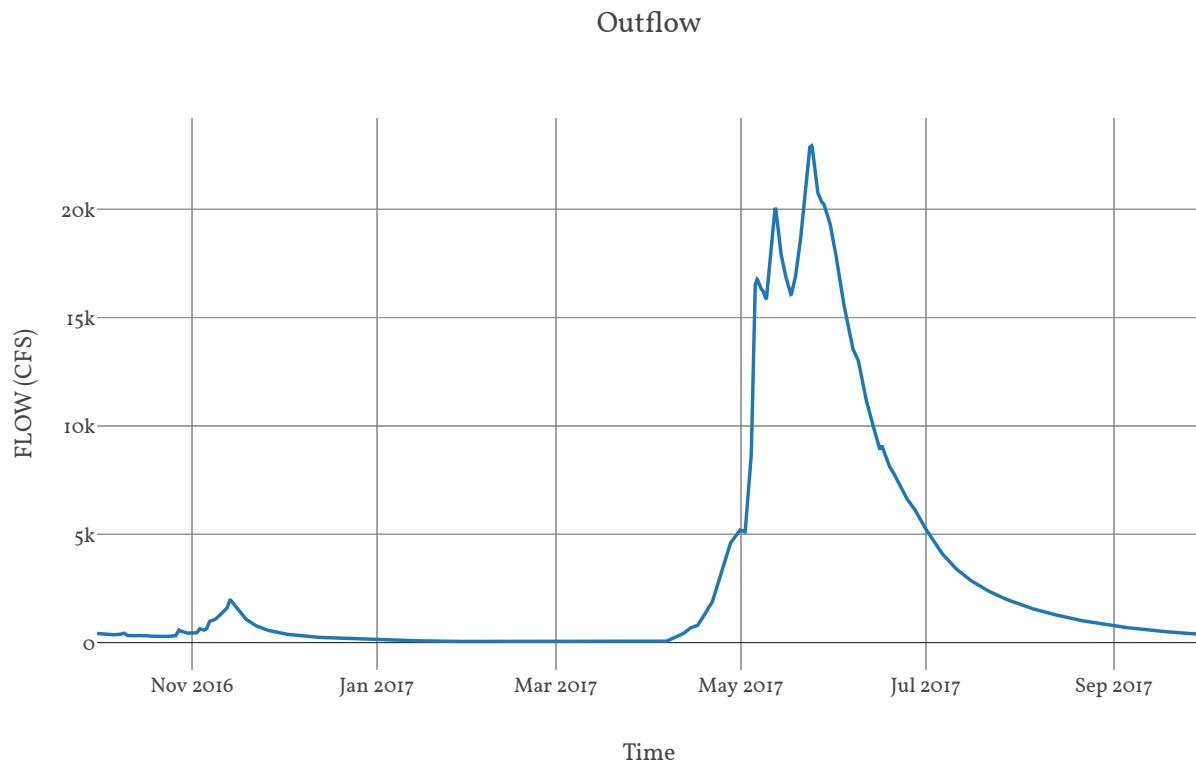
Outflow



Junction : SimNrHedley

Observed Hydrograph : Similkameen river near hedle

Downstream : Similkameen_Ro25



Reach : Similkameen_Ro25

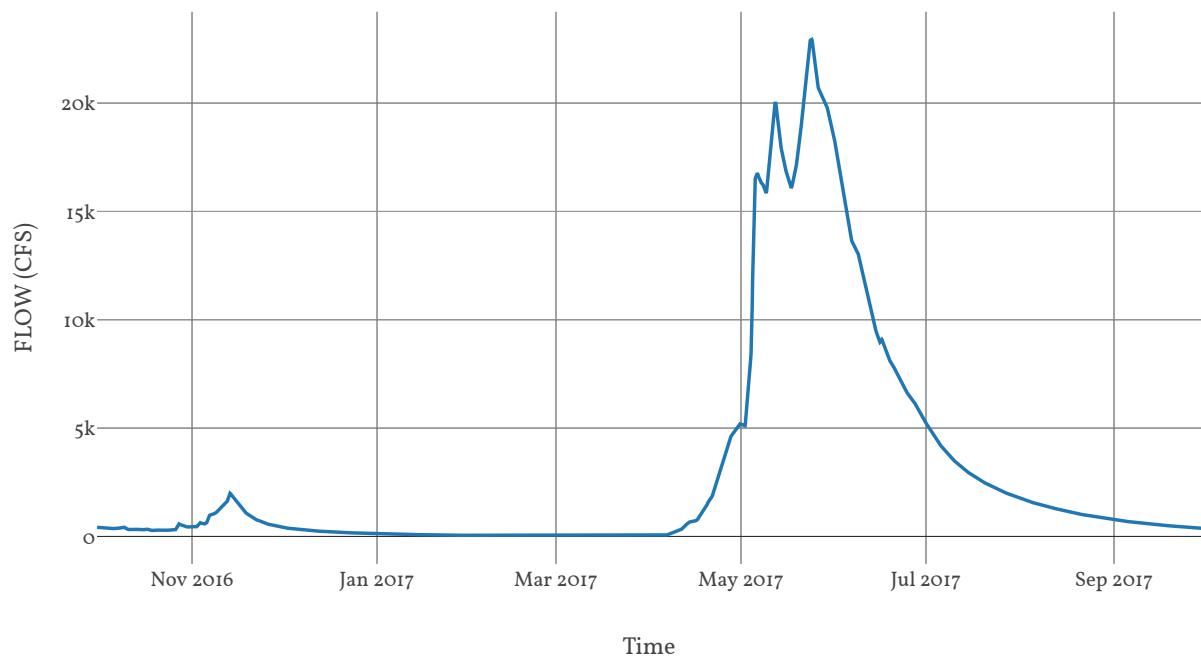
Loss Method : None

Downstream : HedleyCk_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 26319
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name Similkameen_Ro25
	Energy Slope 0
	Right Mannings N 0.15

Outflow



Subbasin : HedleyCk_Soro

Area : 152.49

Observed Hydrograph : Hedley creek near the mouth

Latitude : 49.49

Longitude : -120.06

Downstream : HedleyCk_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.27
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	1

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	1
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.52
Storage Coefficient	5.52

Baseflow

Method

Linear Reservoir

Baseflow Layer List

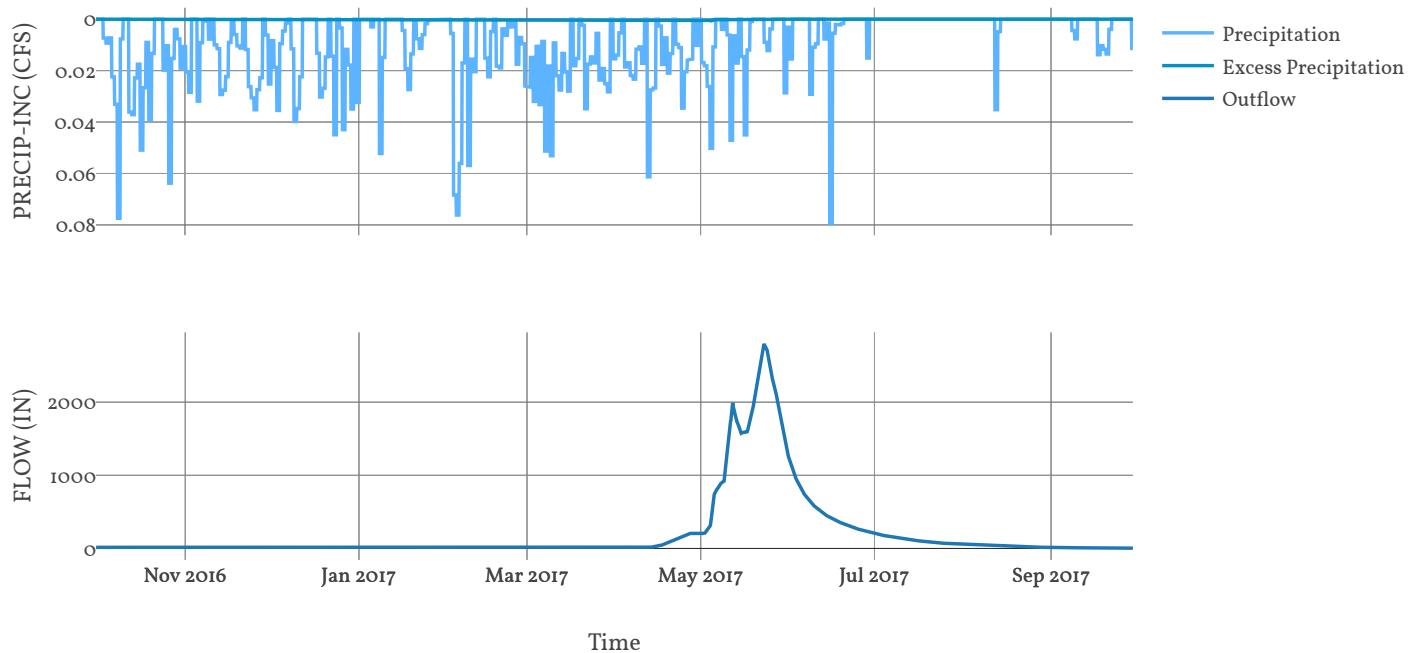
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	110.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	552
	Number Steps	1

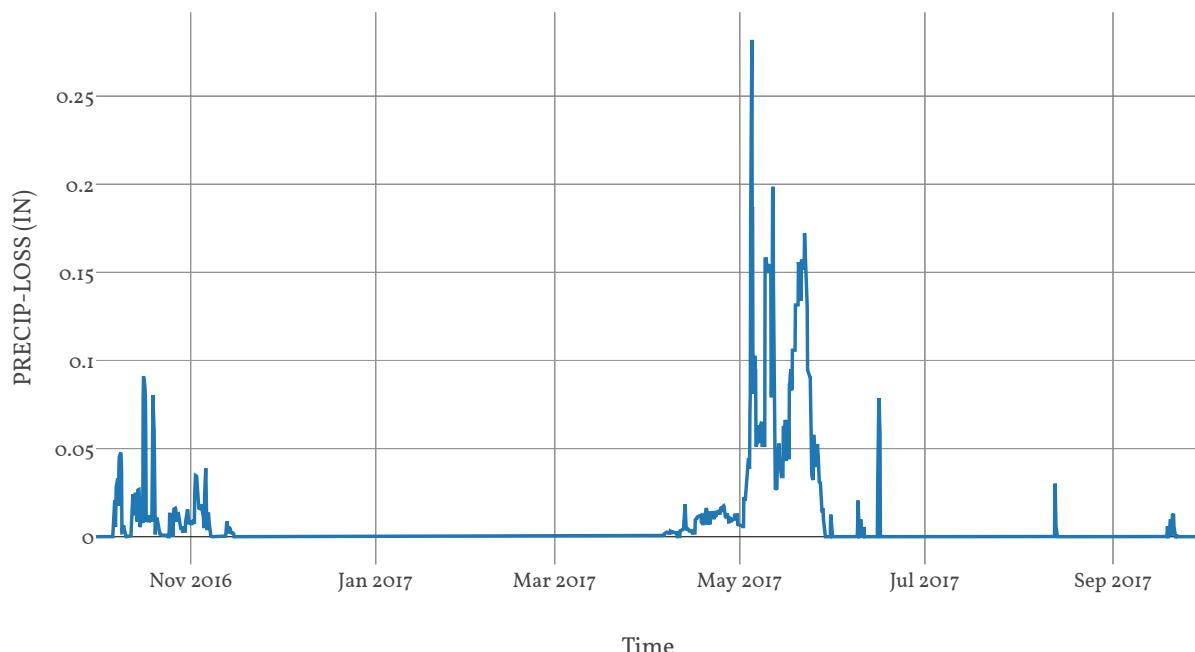
Statistics

Name	Value	Unit
Baseflow Volume	138939.2	Ac-ft
Precipitation Volume	244705	Ac-ft
Loss Volume	196681.62	Ac-ft
Excess Volume	532.48	Ac-ft

Precipitation and Outflow

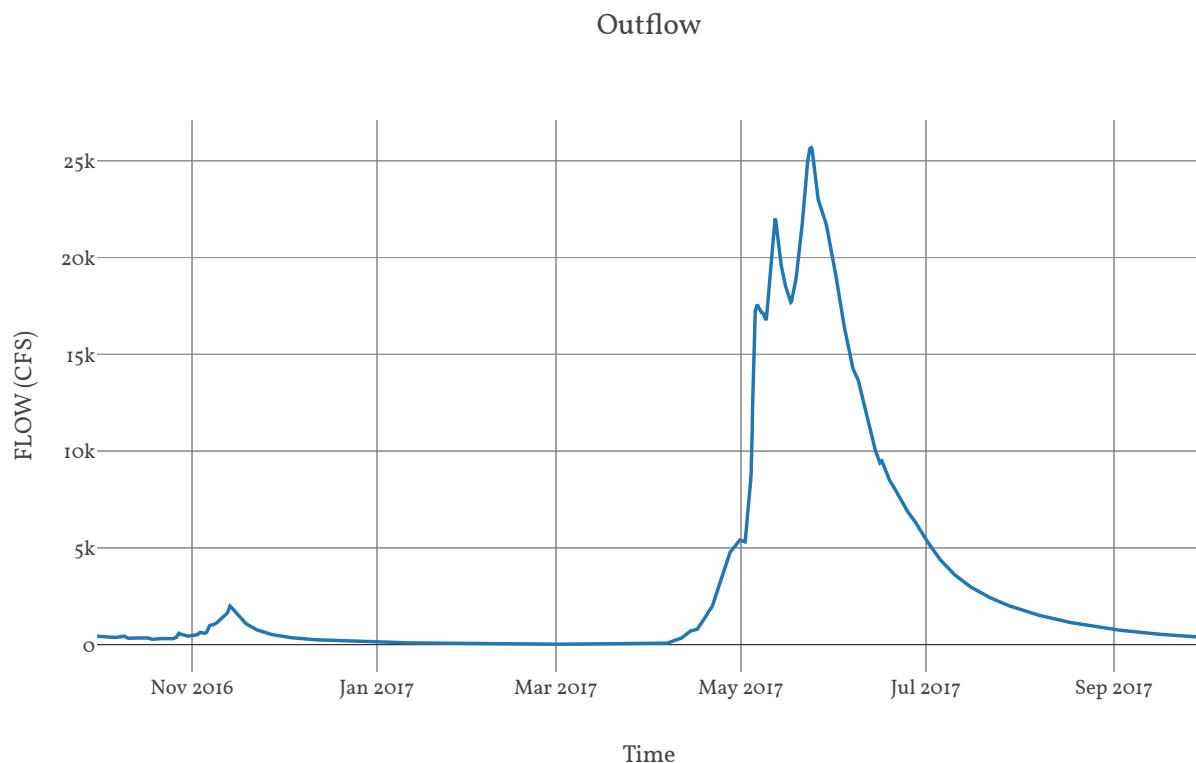


Precipitation Loss



Junction : HedleyCk_CF

Downstream : Similkameen_Ro20



Reach : Similkameen_Ro20

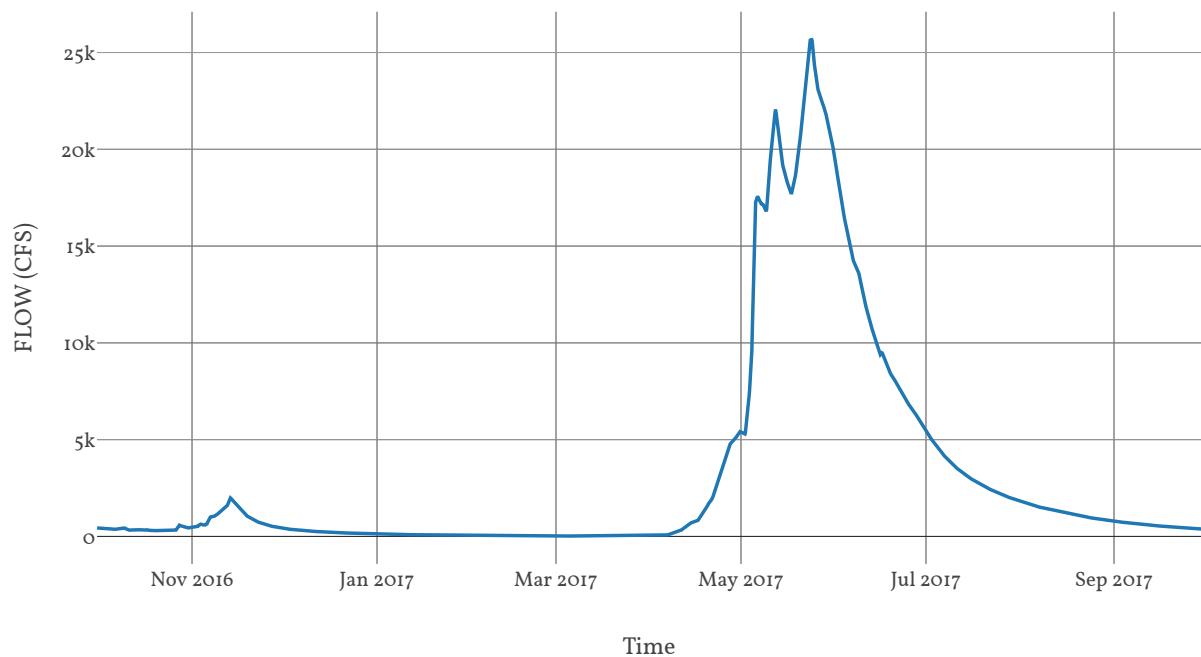
Loss Method : None

Downstream : AshnolaRv_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	
Channel Mannings N	0.04
Nvalue Ratio	1
Length	60948
Max Depth Difference	0
Left Mannings N	0.15
Channel Type	Eight Point
Mannings N	0.04
Cross Section Name	Similkameen_Ro20
Energy Slope	0
Right Mannings N	0.15

Outflow



Subbasin : EwartCk_Soio

Area : 97.12

Latitude : 49.05

Longitude : -120.03

Downstream : Ewart Ck

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.2
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	4.14
Storage Coefficient	4.14

Baseflow

Method

Linear Reservoir

Baseflow Layer List

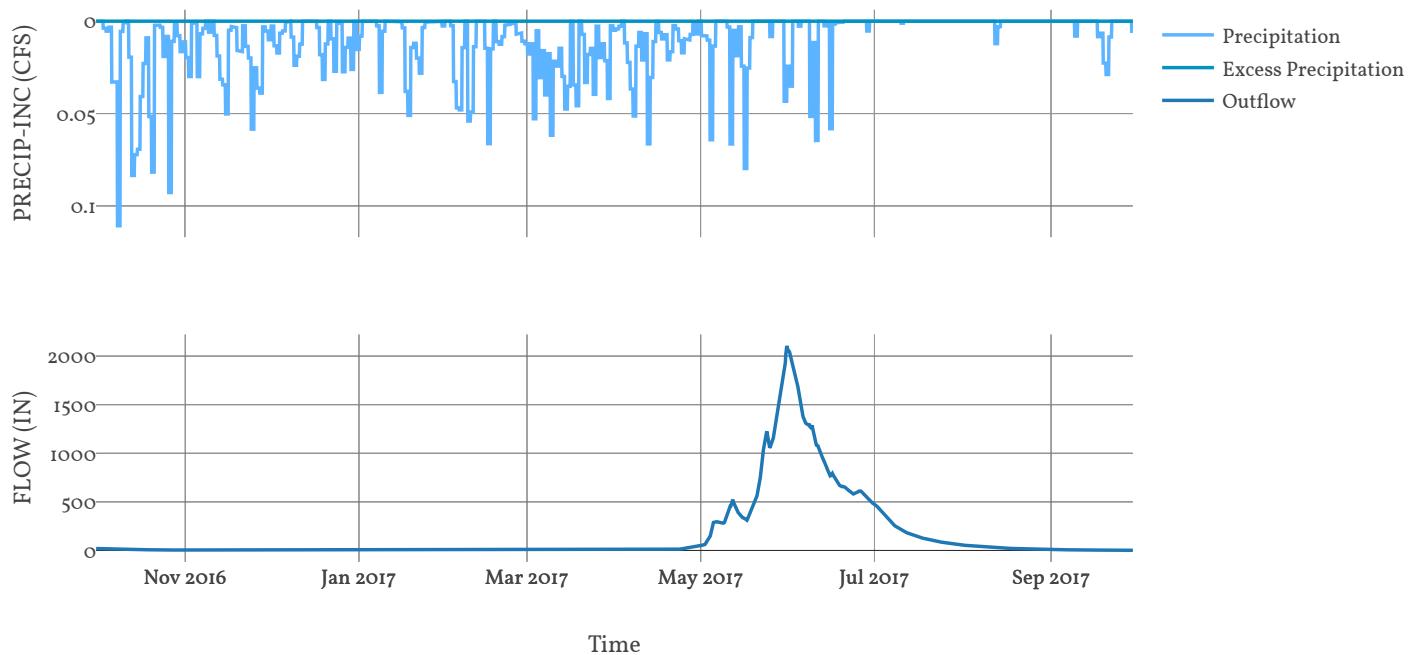
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	82.8
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.2
	Layer Number	2
	Storage Coefficient	414
	Number Steps	1

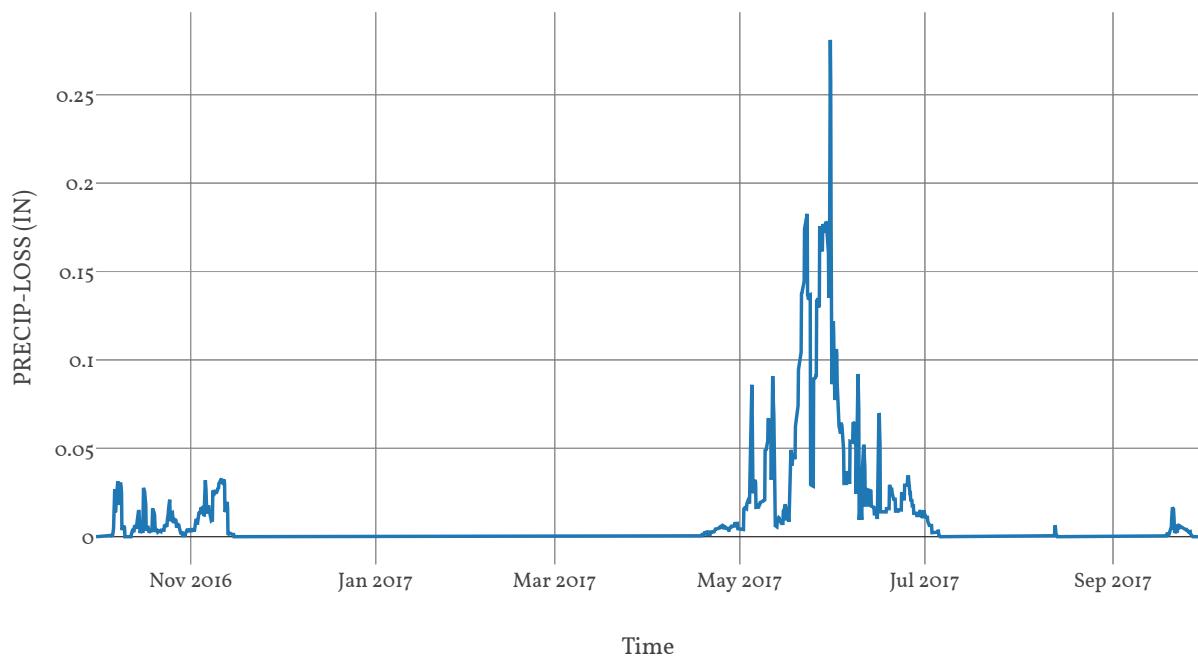
Statistics

Name	Value	Unit
Baseflow Volume	112441.83	Ac-ft
Precipitation Volume	173077.95	Ac-ft
Loss Volume	152037.98	Ac-ft
Excess Volume	304.69	Ac-ft

Precipitation and Outflow

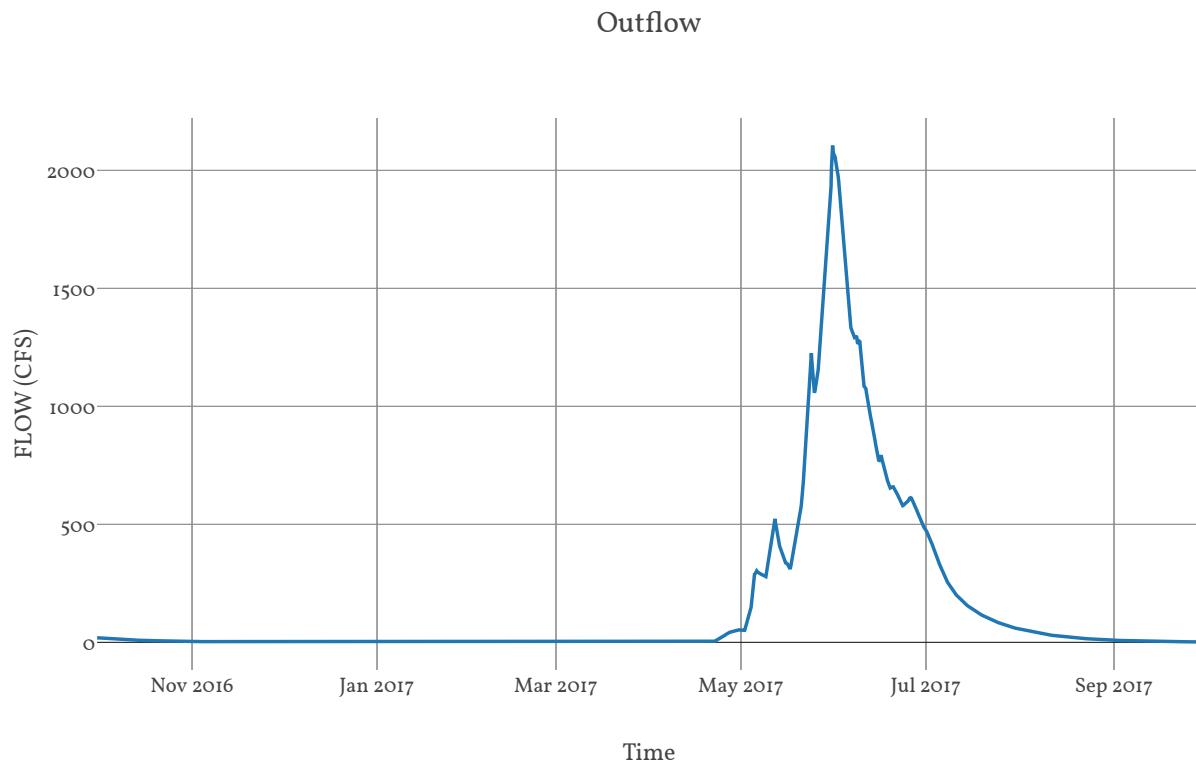


Precipitation Loss



Junction : EwartCk

Observed Hydrograph : Ewart creek nr cathedral
Downstream : EwartCk_Roo5



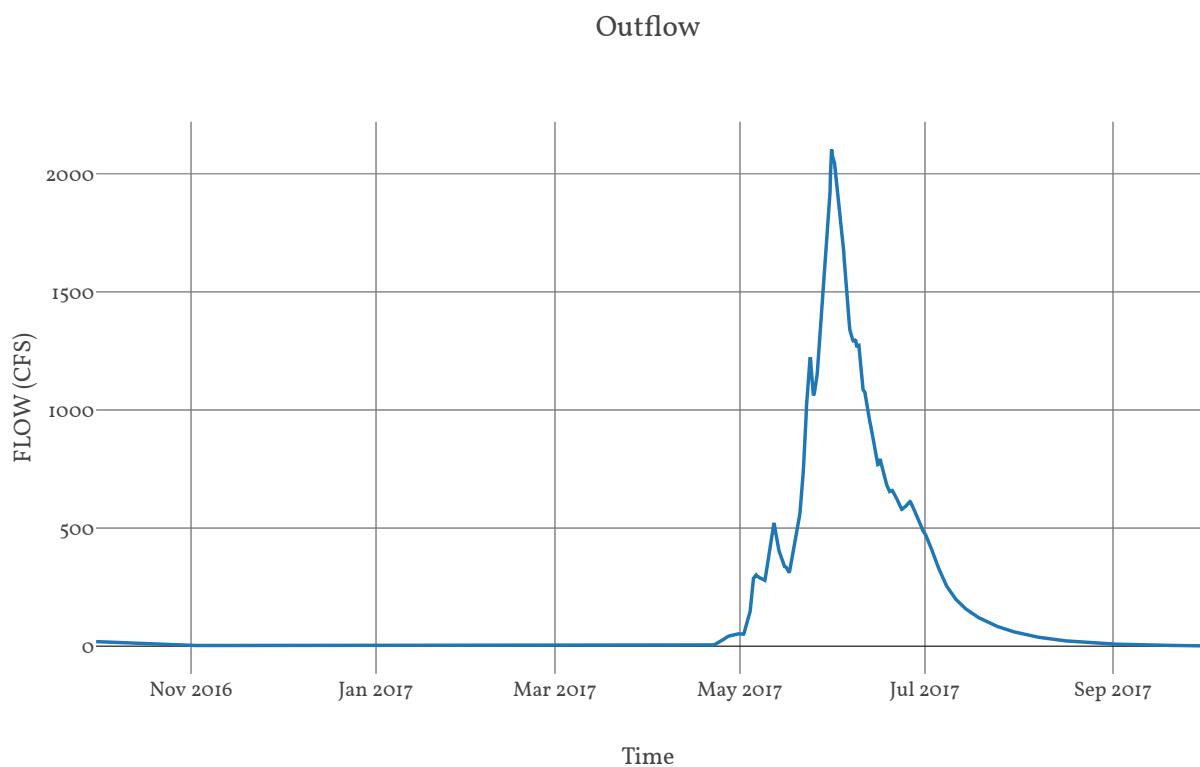
Reach : EwartCk_Roo5

Loss Method : None

Downstream : Ashnola Rv

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 42705
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name EwartCk_Roo5
	Energy Slope 0.02
	Right Mannings N 0.15



Subbasin : AshnolaRv_So10

Area : 312.39

Latitude : 49.09

Longitude : -120.24

Downstream : Ashnola Rv

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.12
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	9.03
Storage Coefficient	9.03

Baseflow

Method

Linear Reservoir

Baseflow Layer List

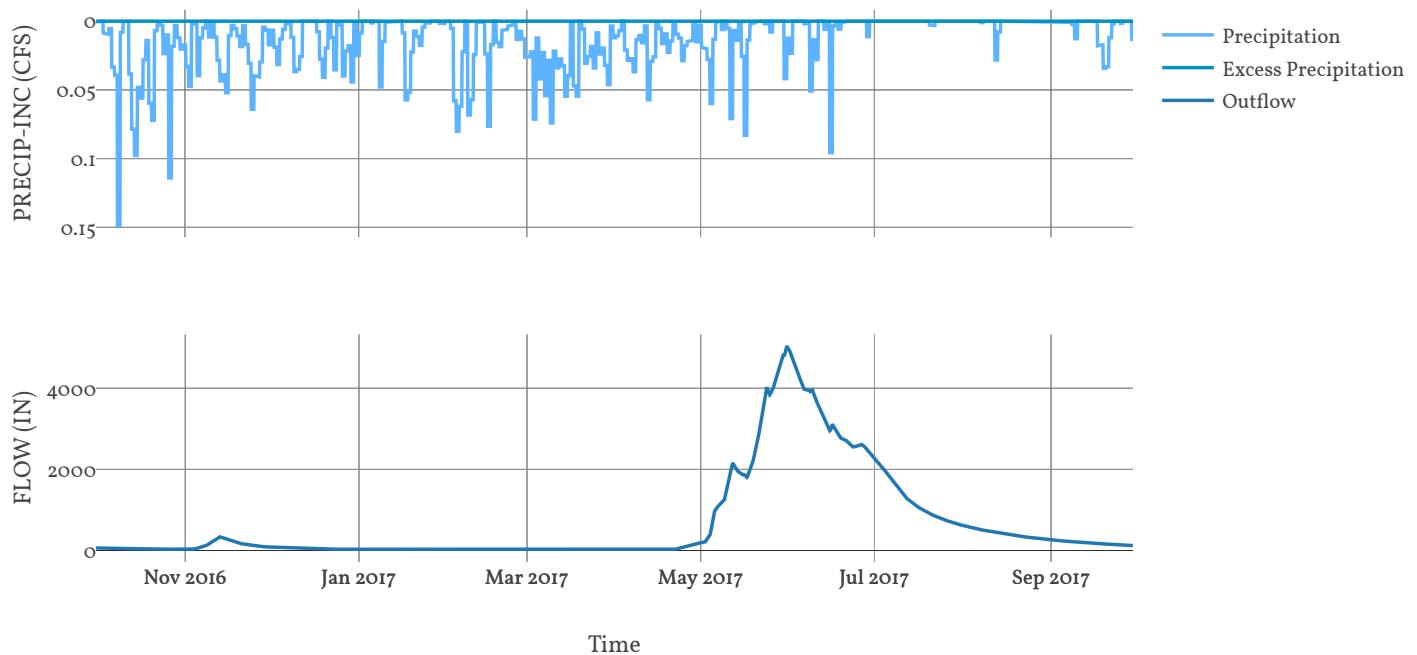
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	180.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.2
	Layer Number	2
	Storage Coefficient	903
	Number Steps	1

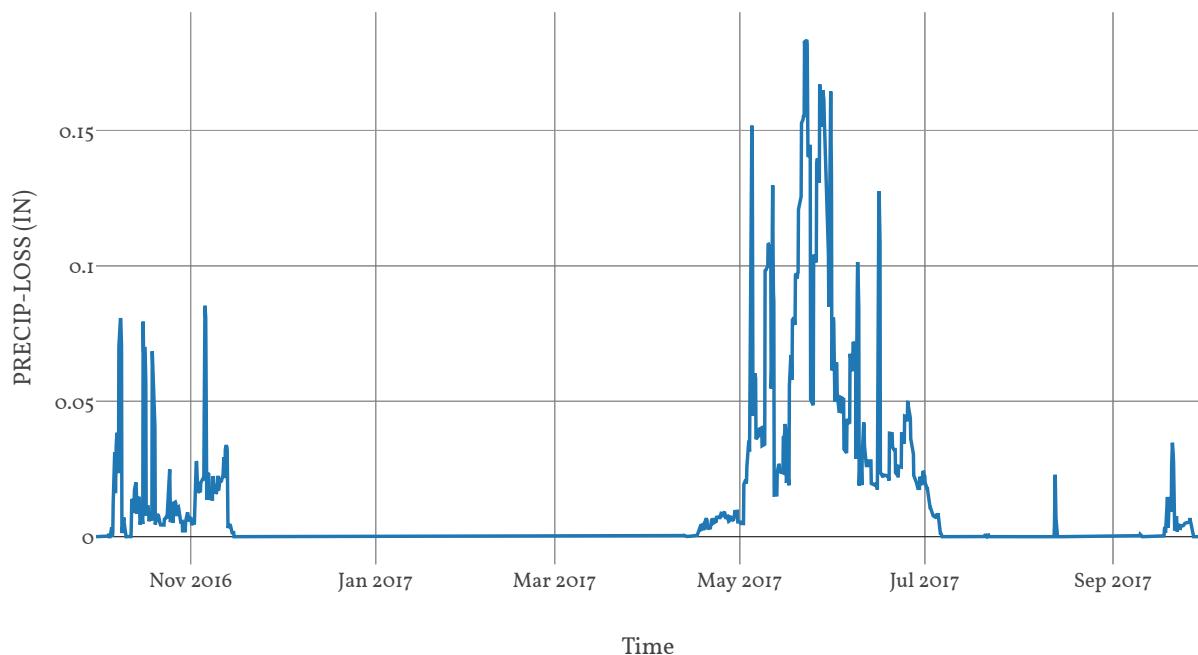
Statistics

Name	Value	Unit
Baseflow Volume	468933.87	Ac-ft
Precipitation Volume	696300.01	Ac-ft
Loss Volume	609011.2	Ac-ft
Excess Volume	731.69	Ac-ft

Precipitation and Outflow



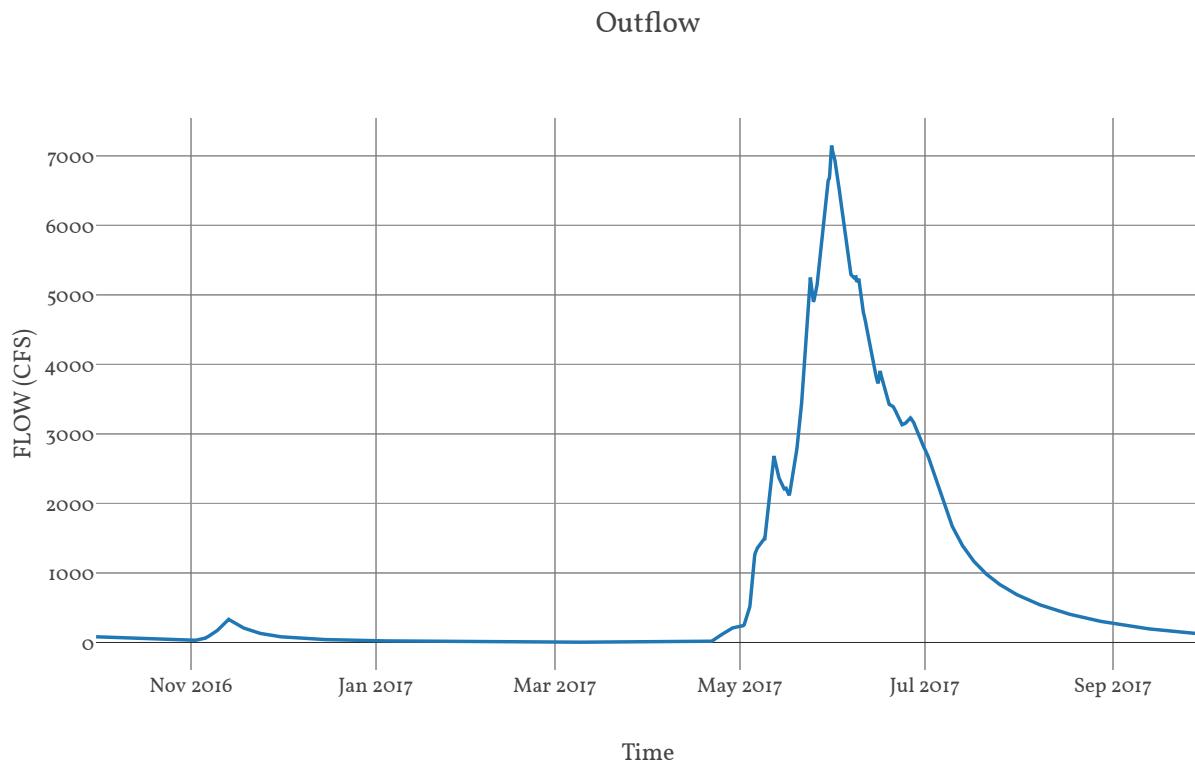
Precipitation Loss



Junction : AshnolaRv

Observed Hydrograph : Ashnola river near keremeos

Downstream : AshnolaRv_CF



Subbasin : Similkameen_So20

Area : 172.59

Latitude : 49.29

Longitude : -120.09

Downstream : AshnolaRv_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.01
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	1

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	1
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	4.92
Storage Coefficient	4.92

Baseflow

Method

Linear Reservoir

Baseflow Layer List

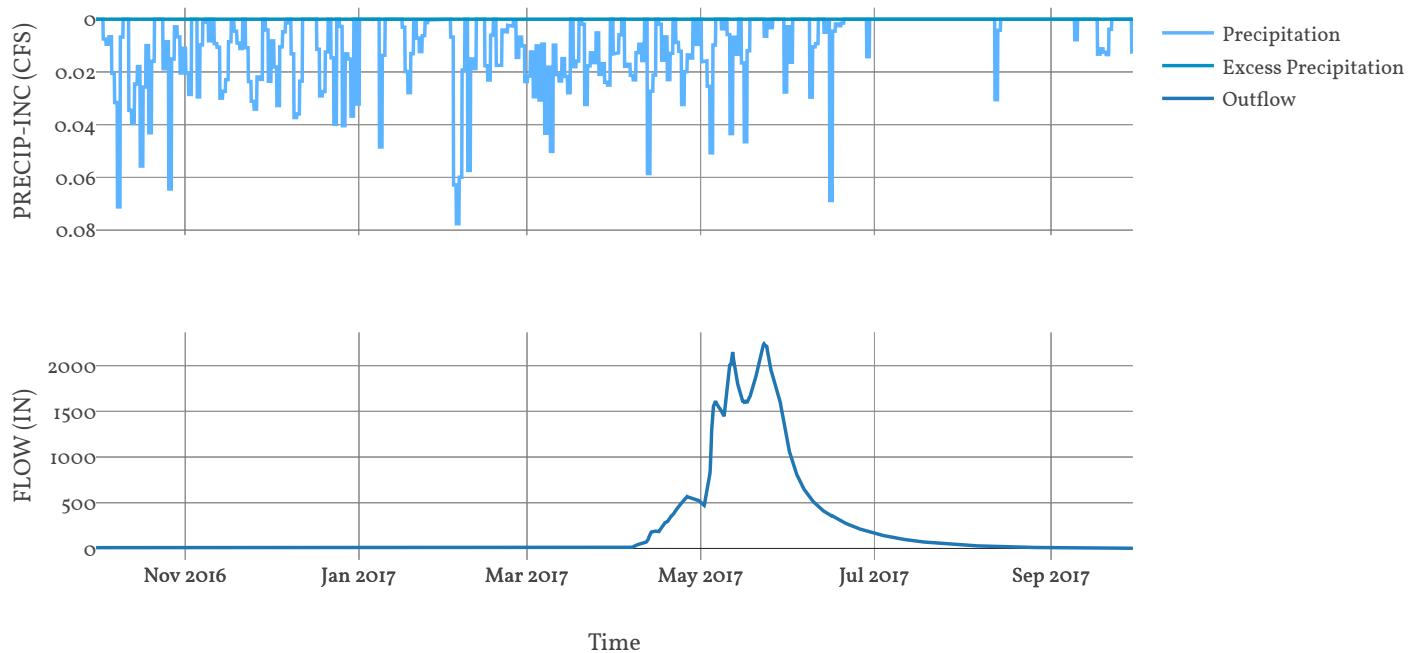
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	98.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	492
	Number Steps	1

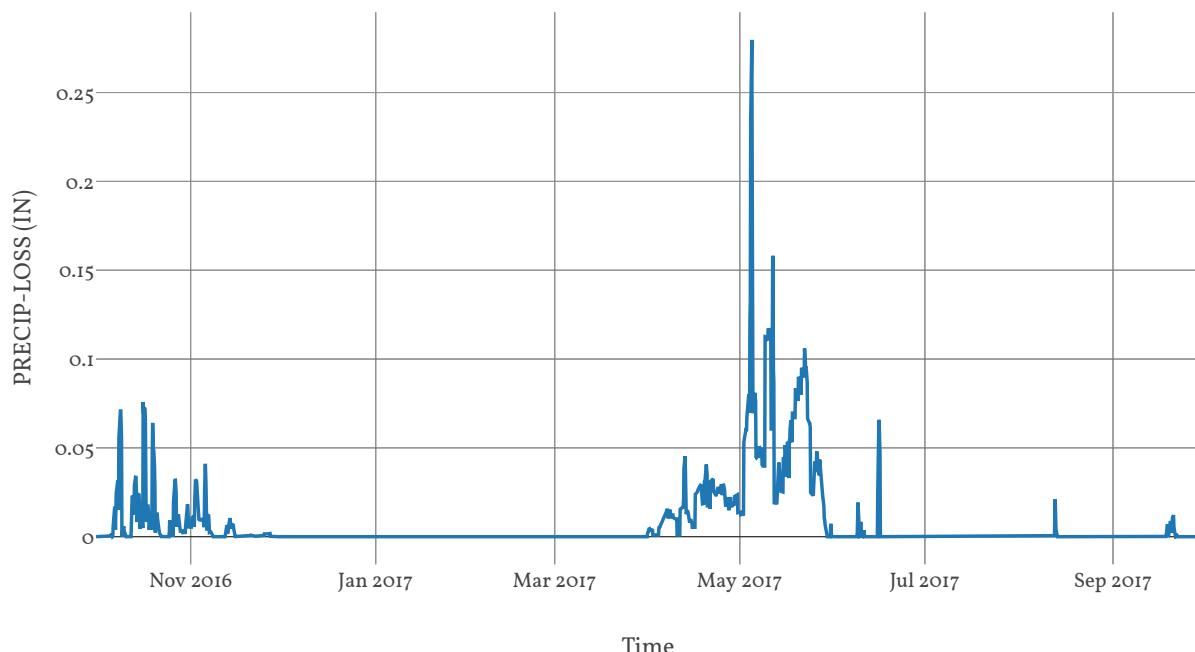
Statistics

Name	Value	Unit
Baseflow Volume	145560.9	Ac-ft
Precipitation Volume	265949.73	Ac-ft
Loss Volume	210204.97	Ac-ft
Excess Volume	21.02	Ac-ft

Precipitation and Outflow

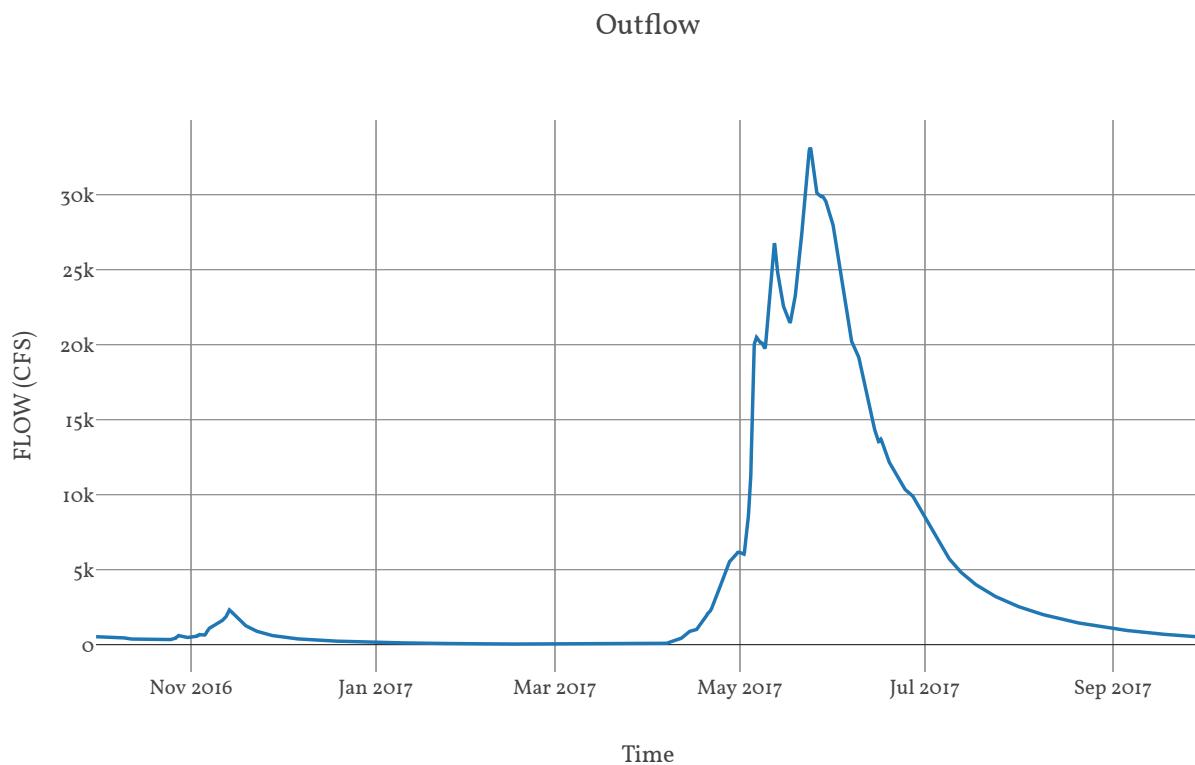


Precipitation Loss



Junction : AshnolaRv_CF

Downstream : Similkameen_R015



Reach : Similkameen_Ro15

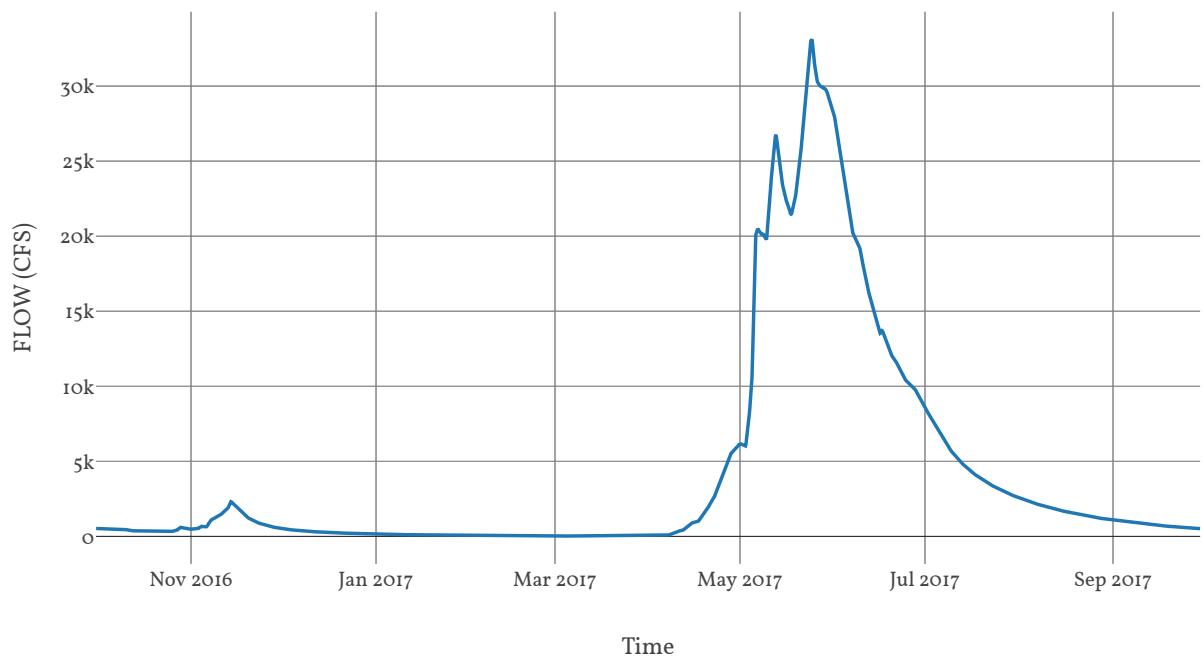
Loss Method : None

Downstream : PalmerCk_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04 Nvalue Ratio 1 Length 187780 Max Depth Difference 0 Left Mannings N 0.15 Channel Type Eight Point Mannings N 0.04 Cross Section Name Similkameen_Ro15 Energy Slope 0 Right Mannings N 0.15

Outflow



Subbasin : PalmerCk_Soro

Area : 298.08

Latitude : 48.82

Longitude : -119.78

Downstream : PalmerCk_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	1.74
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	8.75
Storage Coefficient	8.75

Baseflow

Method

Linear Reservoir

Baseflow Layer List

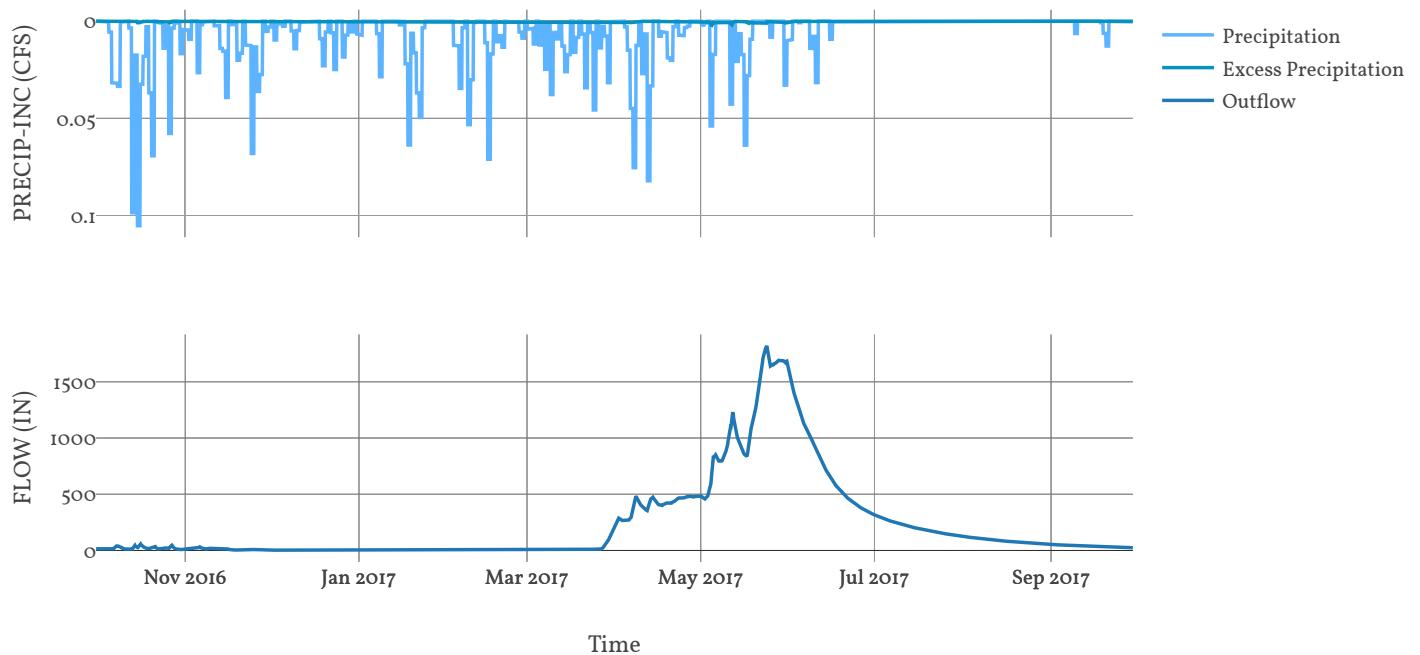
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	175
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	875
	Number Steps	1

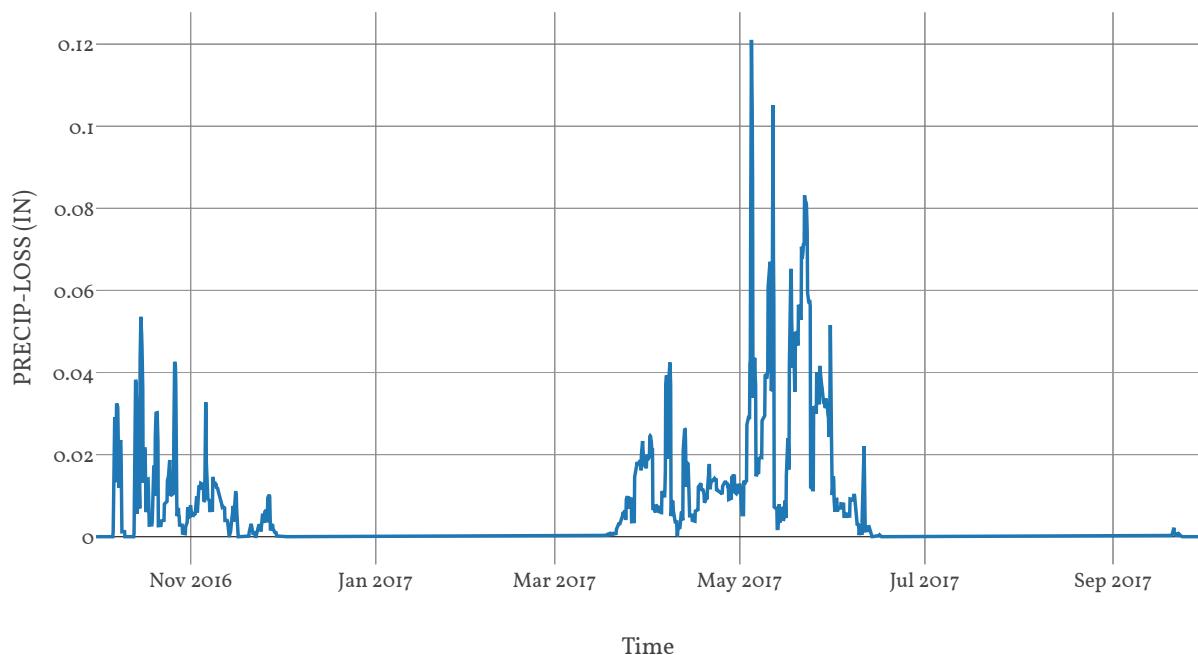
Statistics

Name	Value	Unit
Baseflow Volume	157208.42	Ac-ft
Precipitation Volume	348902.21	Ac-ft
Loss Volume	271304.3	Ac-ft
Excess Volume	4804.29	Ac-ft

Precipitation and Outflow

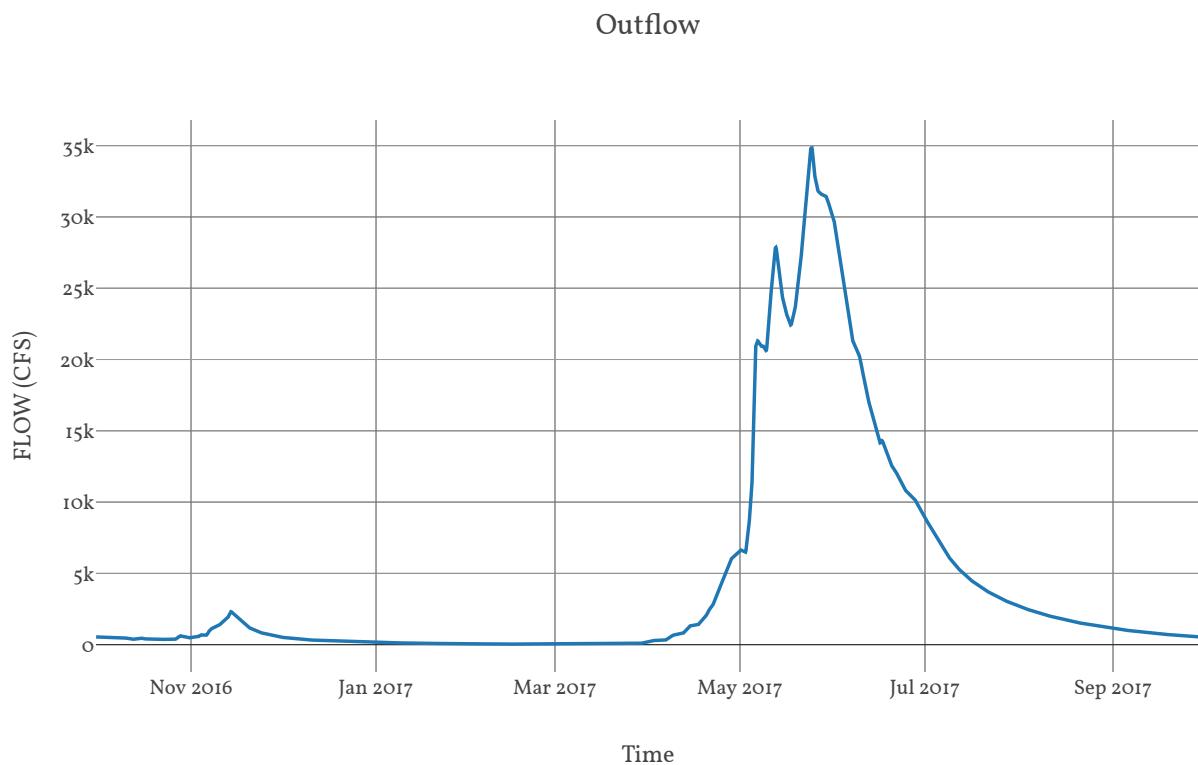


Precipitation Loss



Junction : PalmerCk_CF

Downstream : Similkameen_ROIO



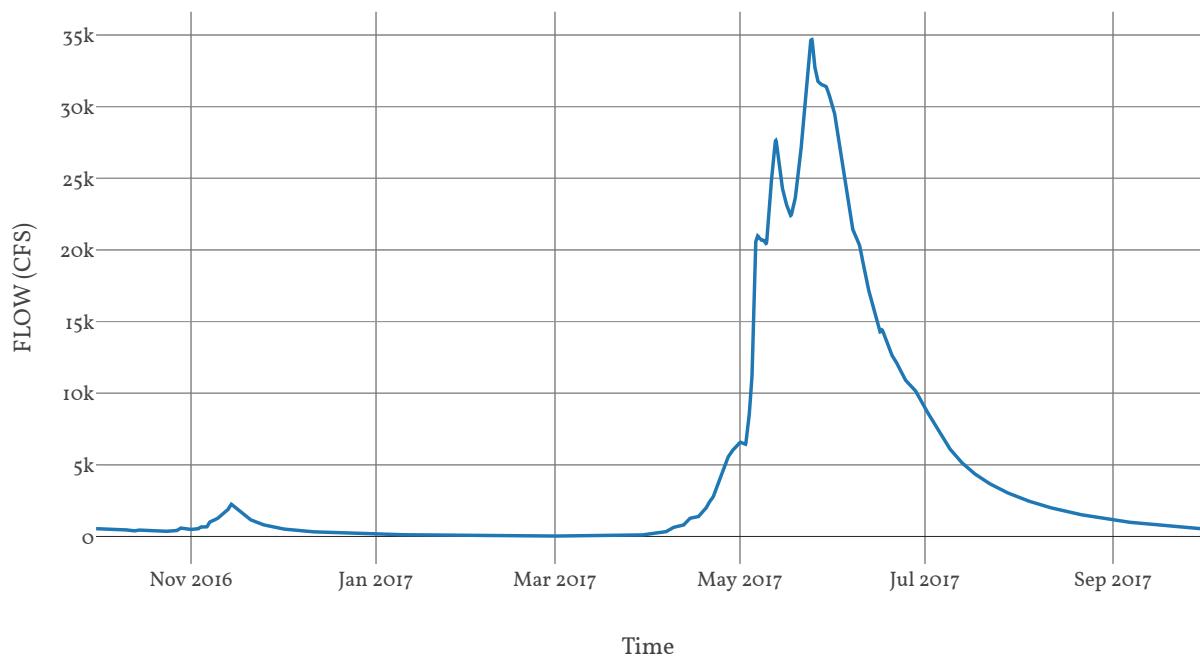
Reach : Similkameen_RoIO

Loss Method : None

Downstream : Similkameen Rv

Route	
Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 19515
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name Similkameen_RoIO
	Energy Slope 0
	Right Mannings N 0.15

Outflow



Subbasin : Similkameen_So10

Area : 343.09

Latitude : 49.15

Longitude : -119.79

Downstream : Similkameen Rv

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.26
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	11.23
Storage Coefficient	11.23

Baseflow

Method

Linear Reservoir

Baseflow Layer List

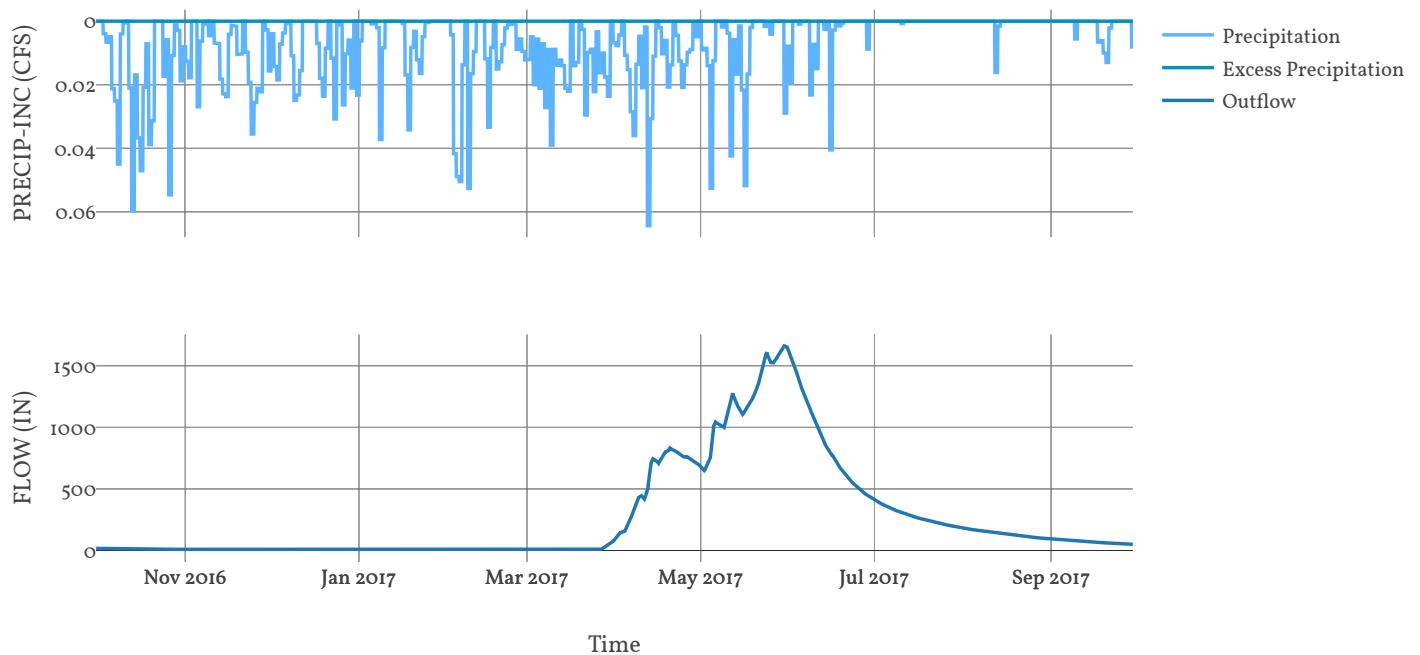
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	224.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	1123
	Number Steps	1

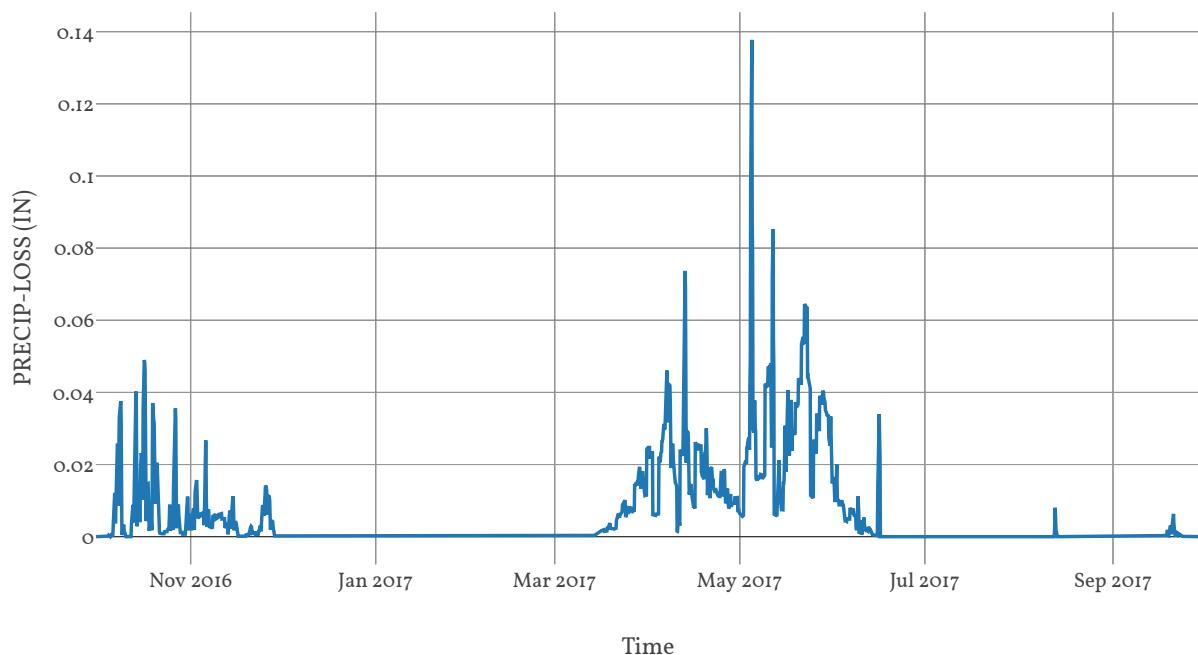
Statistics

Name	Value	Unit
Baseflow Volume	191457.05	Ac-ft
Precipitation Volume	432783.2	Ac-ft
Loss Volume	322161.69	Ac-ft
Excess Volume	839.8	Ac-ft

Precipitation and Outflow



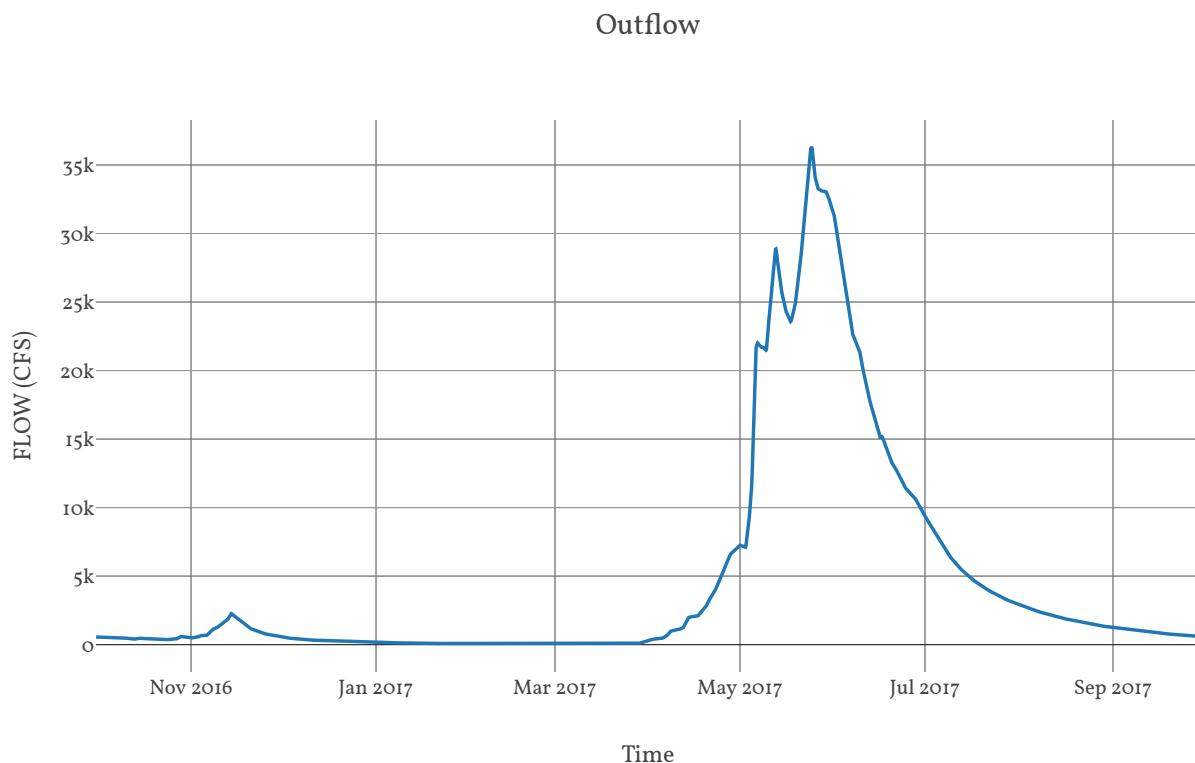
Precipitation Loss



Junction : SimilkameenRv

Observed Hydrograph : Similkameen river near night

Downstream : Similkameen_Roo5



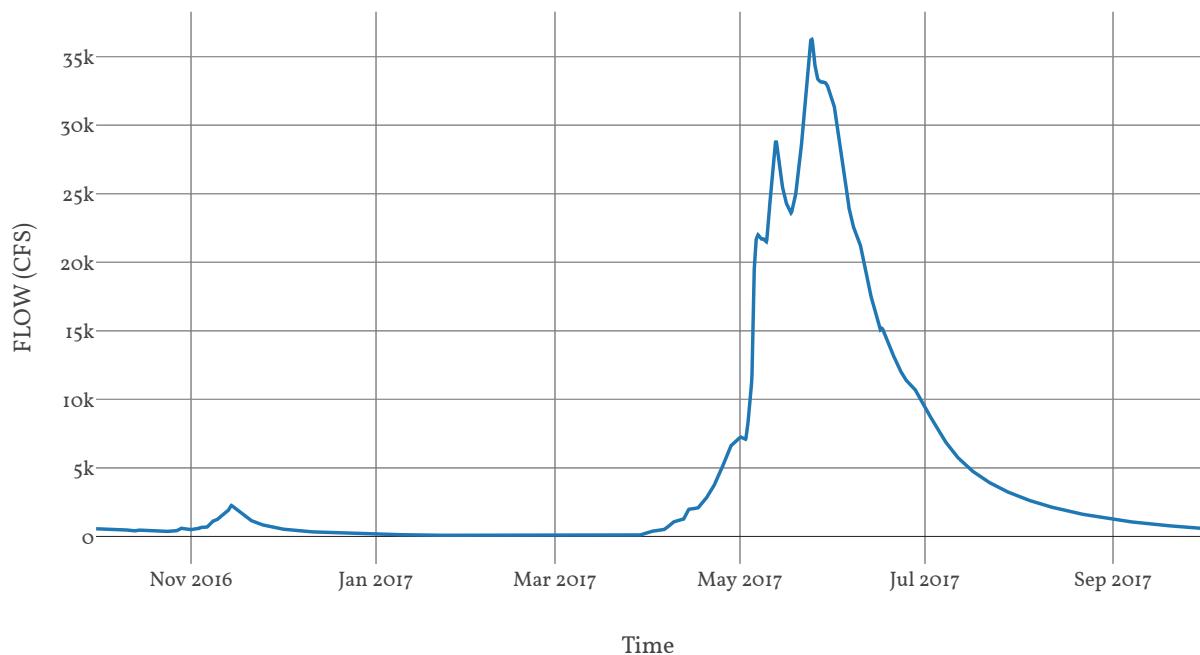
Reach : Similkameen_Roo5

Loss Method : None

Downstream : Similkameen_CF

Route		
Space Time Method		Auto Dx Dt
Method		Muskingum Cunge
Maximum Depth Iterations		20
Index Parameter Type		Index Flow
Initial Variable		Combined Inflow
Index Flow		20000
Channel Type		Eight Point
Maximum Route Step Iterations		30
Channel	Channel Mannings N	0.04
	Nvalue Ratio	1
	Length	87233
	Max Depth Difference	0
	Left Mannings N	0.15
	Channel Type	Eight Point
	Mannings N	0.04
	Cross Section Name	Similkameen_Roo5
	Energy Slope	0
	Right Mannings N	0.15

Outflow



Subbasin : VernonCk_Soro

Area : 221.17

Latitude : 50.15

Longitude : -119.24

Downstream : KalamalkaLk_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	8.3
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	9.67
Storage Coefficient	9.67

Baseflow

Method

Linear Reservoir

Baseflow Layer List

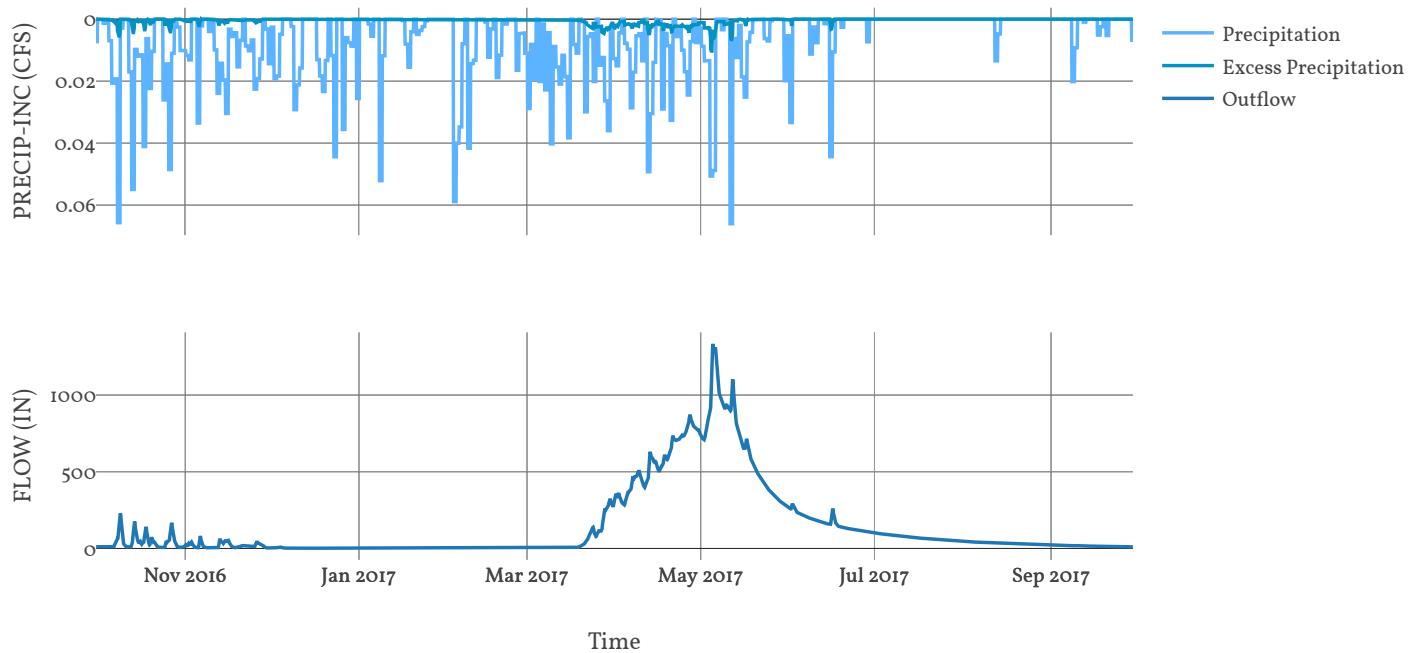
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	193.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	967
	Number Steps	1

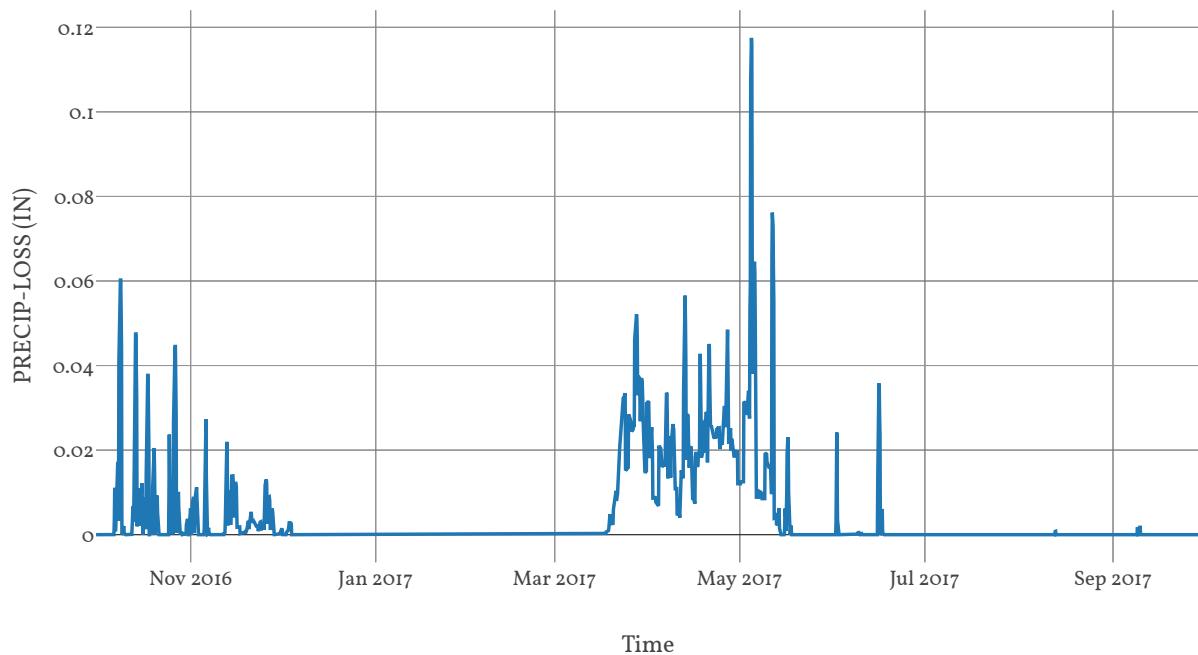
Statistics

Name	Value	Unit
Baseflow Volume	85255.07	Ac-ft
Precipitation Volume	260341.33	Ac-ft
Loss Volume	160029.28	Ac-ft
Excess Volume	14484.66	Ac-ft

Precipitation and Outflow

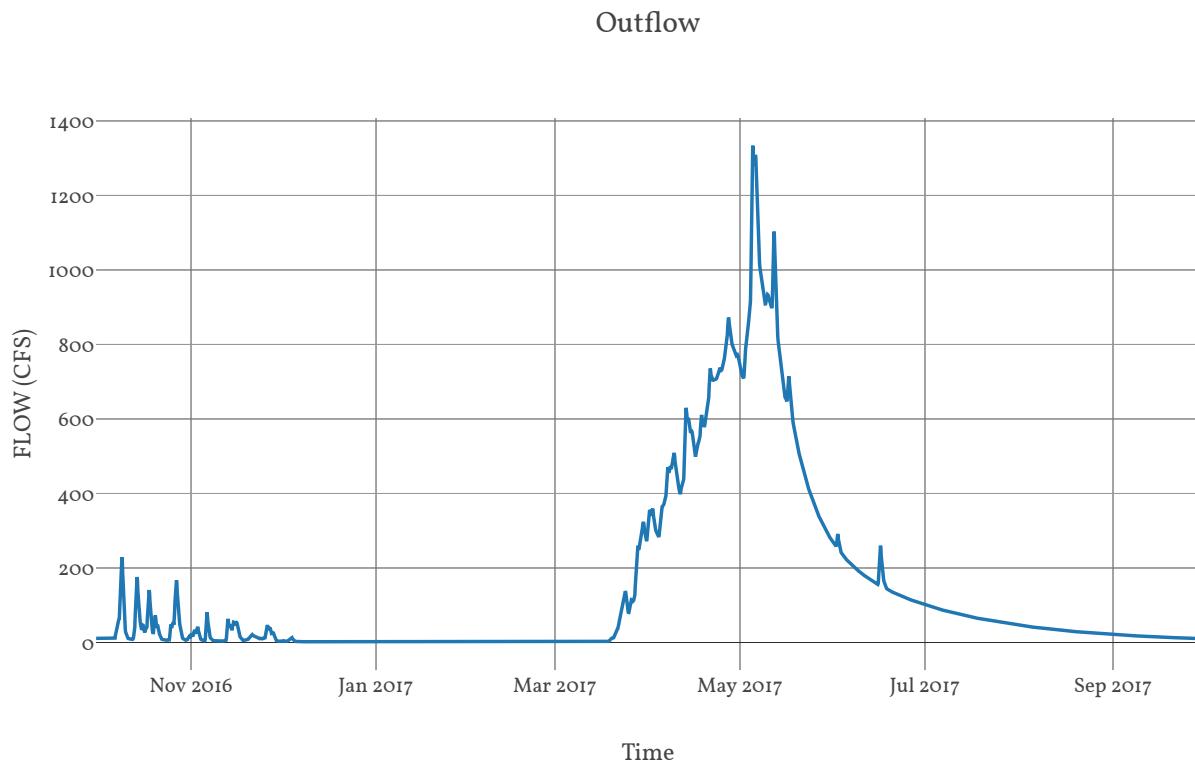


Precipitation Loss



Junction : KalamalkaLk_IN

Downstream : Kalamalka Lk



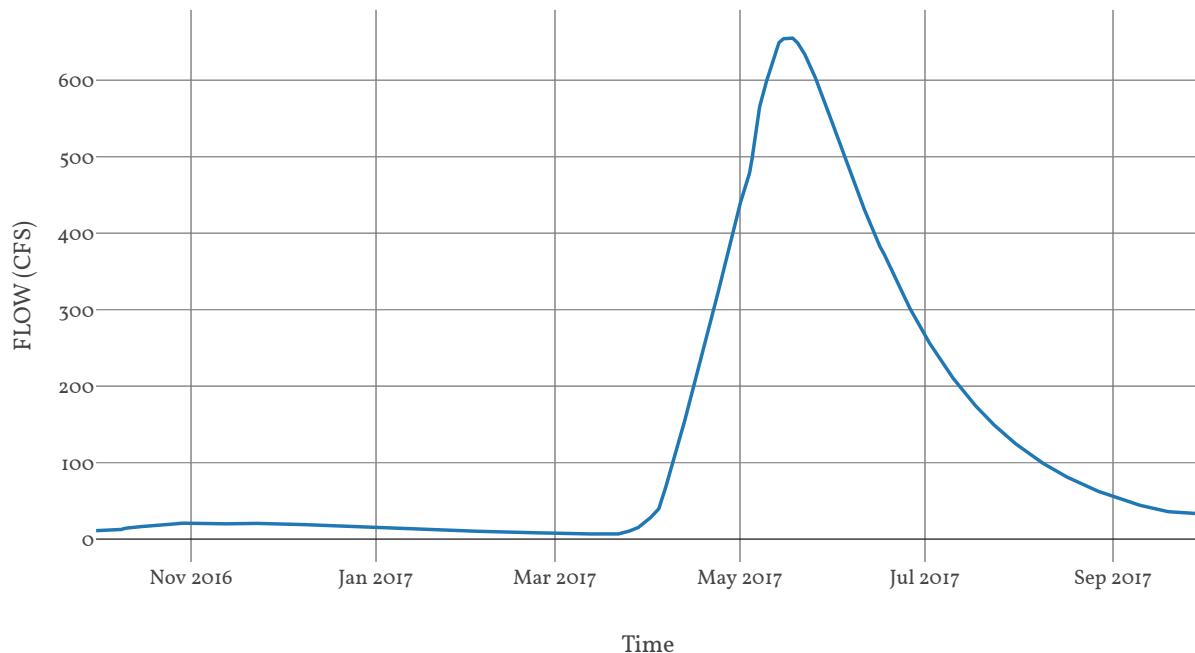
Reservoir : KalamalkaLk

Quality Method : Unspecified

Method : Modified Puls

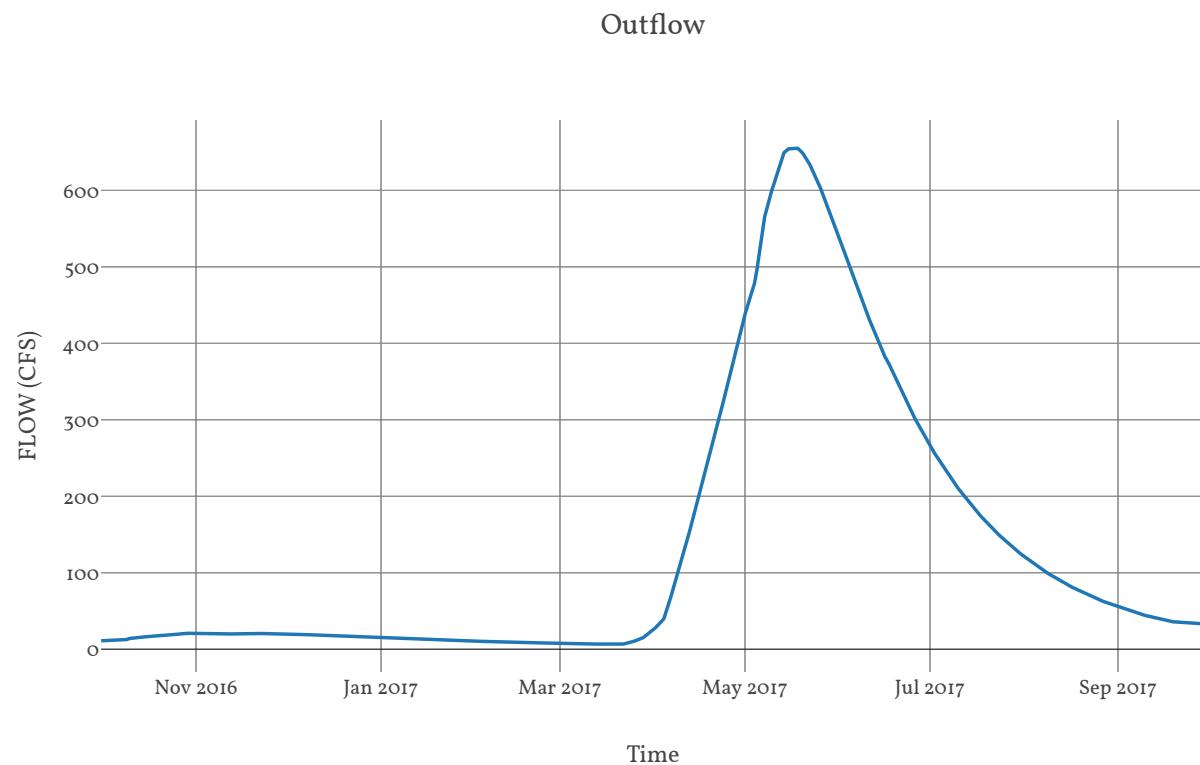
Downstream : Vernon Ck

Outflow



Junction : VernonCk

Downstream : Okanagan_IN



Subbasin : OkanaganRv_So70

Area : 652.9

Latitude : 49.75

Longitude : -119.66

Downstream : Okanagan_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	11.53
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	9.7
Storage Coefficient	9.7

Baseflow

Method

Linear Reservoir

Baseflow Layer List

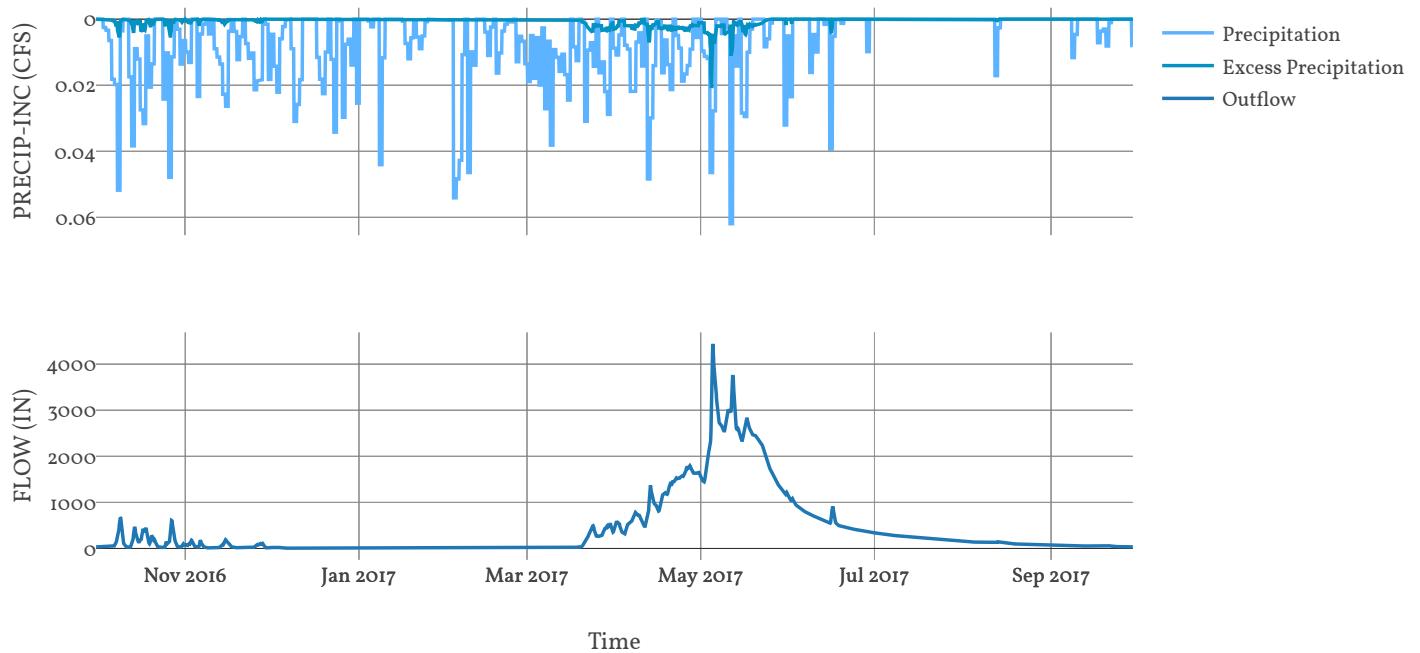
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	194
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	970
	Number Steps	1

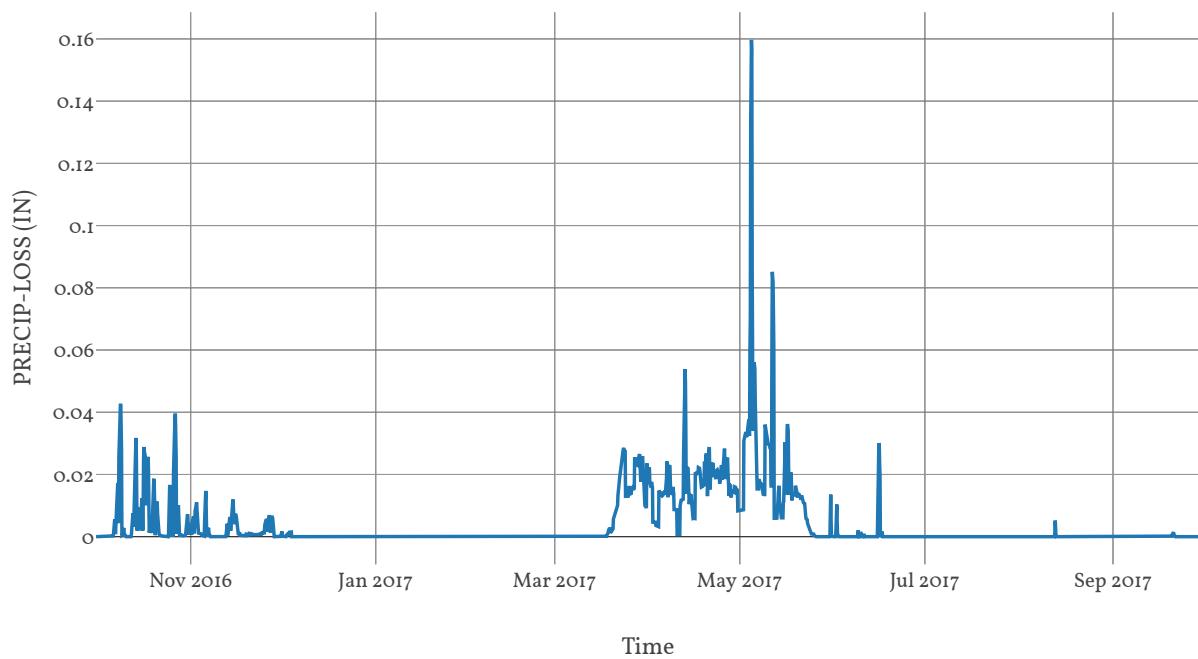
Statistics

Name	Value	Unit
Baseflow Volume	228389.76	Ac-ft
Precipitation Volume	736483.02	Ac-ft
Loss Volume	439514.1	Ac-ft
Excess Volume	57280.41	Ac-ft

Precipitation and Outflow



Precipitation Loss



Subbasin : OkanaganRv_So90

Area : 424.32

Latitude : 50.34

Longitude : -119.41

Downstream : Okanagan_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	4.6
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	8.03
Storage Coefficient	8.03

Baseflow

Method

Linear Reservoir

Baseflow Layer List

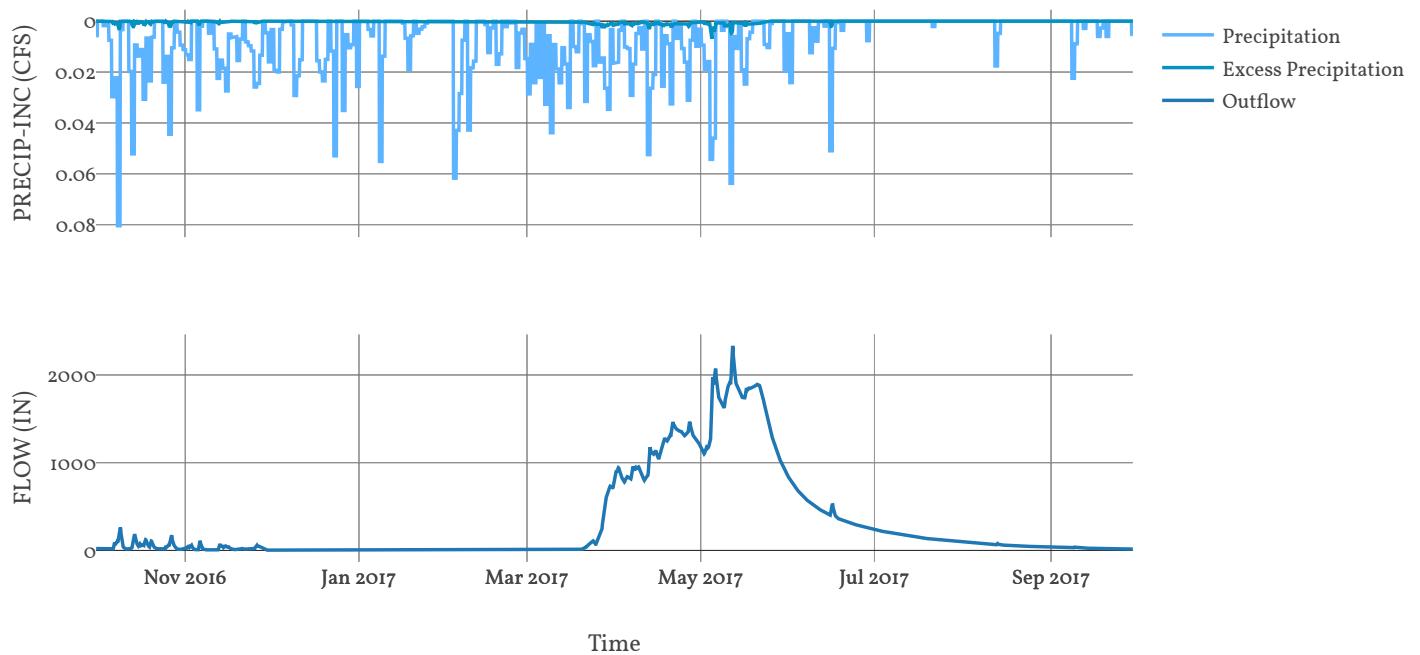
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	160.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	803
	Number Steps	1

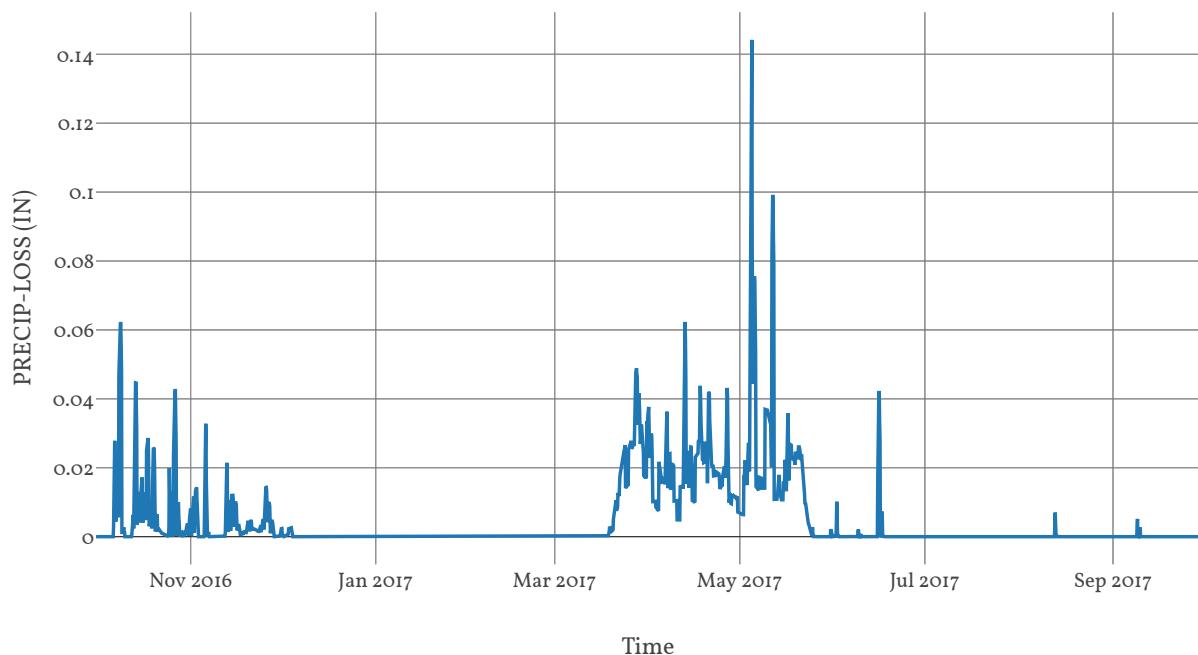
Statistics

Name	Value	Unit
Baseflow Volume	199271.27	Ac-ft
Precipitation Volume	525241.1	Ac-ft
Loss Volume	347813.94	Ac-ft
Excess Volume	16770.9	Ac-ft

Precipitation and Outflow



Precipitation Loss



Subbasin : OkanaganRv_So8o

Area : 383.17

Latitude : 50.04

Longitude : -119.51

Downstream : Okanagan_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	12.9
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	7.32
Storage Coefficient	7.32

Baseflow

Method

Linear Reservoir

Baseflow Layer List

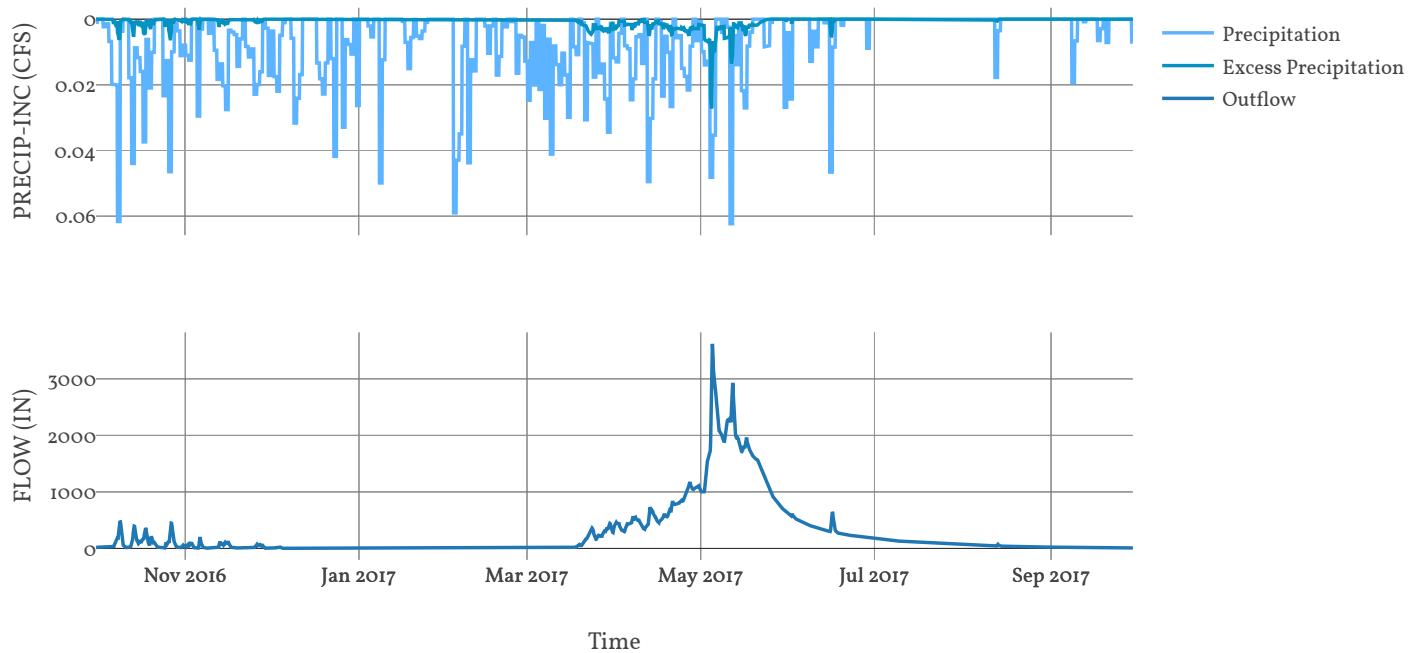
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	146.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	732
	Number Steps	1

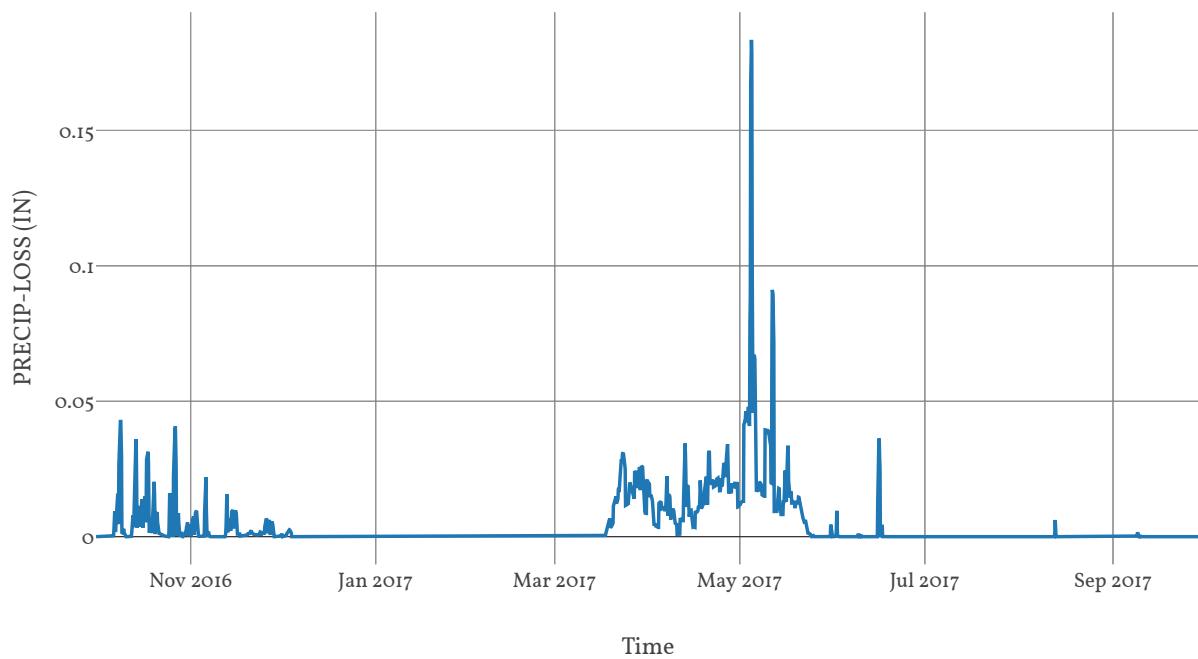
Statistics

Name	Value	Unit
Baseflow Volume	142641.32	Ac-ft
Precipitation Volume	446308.76	Ac-ft
Loss Volume	264851.31	Ac-ft
Excess Volume	39225.97	Ac-ft

Precipitation and Outflow



Precipitation Loss



Subbasin : MissionCk_SoIO

Area : 326.81

Observed Hydrograph : Mission creek near east kelo

Latitude : 49.9

Longitude : -119.13

Downstream : Okanagan_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.94
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	8.81
Storage Coefficient	8.81

Baseflow

Method

Linear Reservoir

Baseflow Layer List

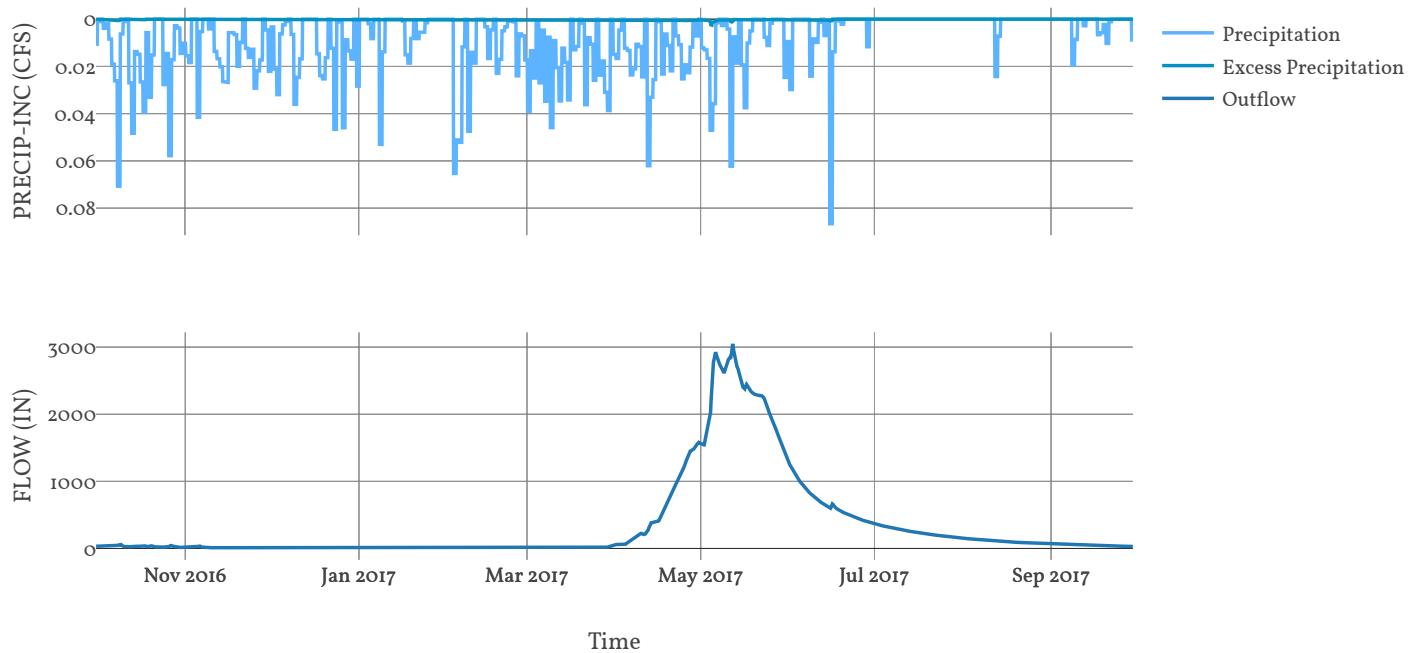
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	176.2
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	881
	Number Steps	1

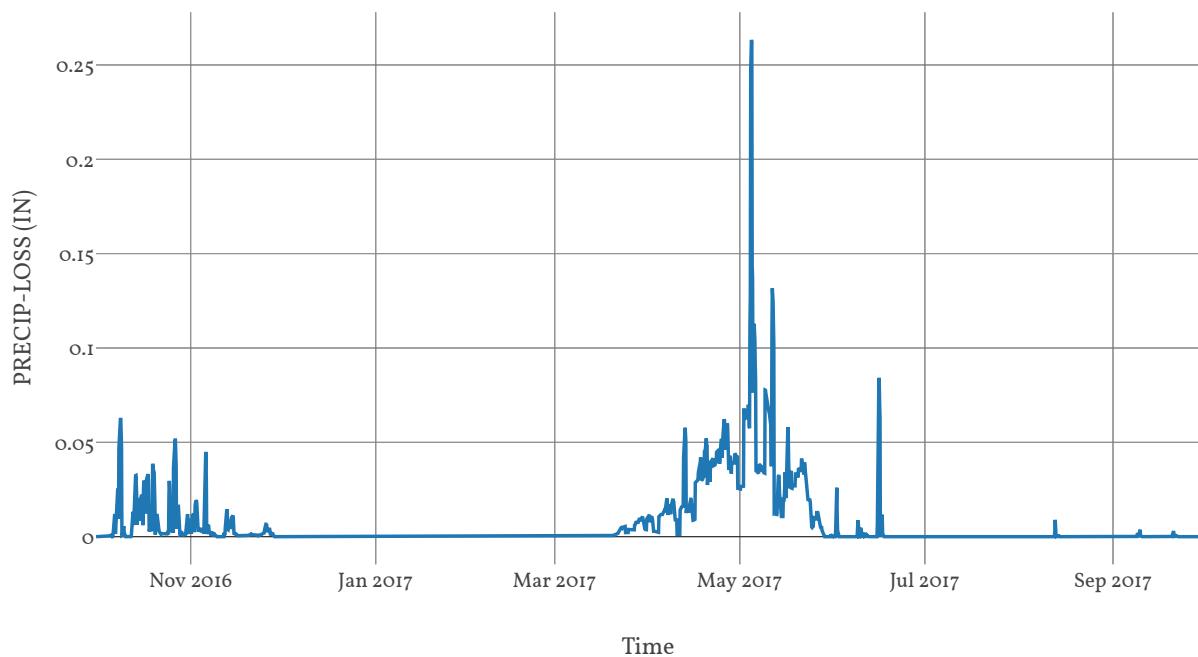
Statistics

Name	Value	Unit
Baseflow Volume	238430.64	Ac-ft
Precipitation Volume	480574.88	Ac-ft
Loss Volume	359219.03	Ac-ft
Excess Volume	3408.7	Ac-ft

Precipitation and Outflow



Precipitation Loss



Subbasin : TroutCk_oio

Area : 288.59

Latitude : 49.68

Longitude : -119.98

Downstream : Okanagan_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.5
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	10.24
Storage Coefficient	10.24

Baseflow

Method

Linear Reservoir

Baseflow Layer List

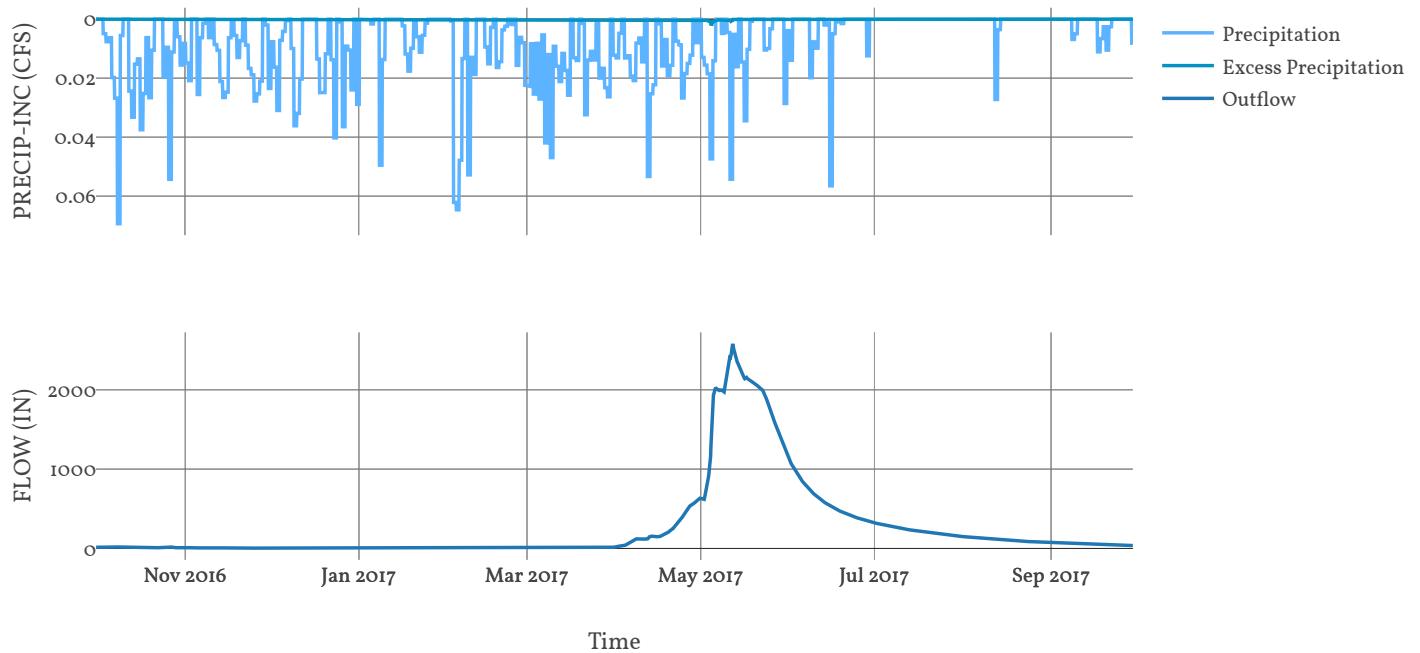
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	204.8
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	1024
	Number Steps	1

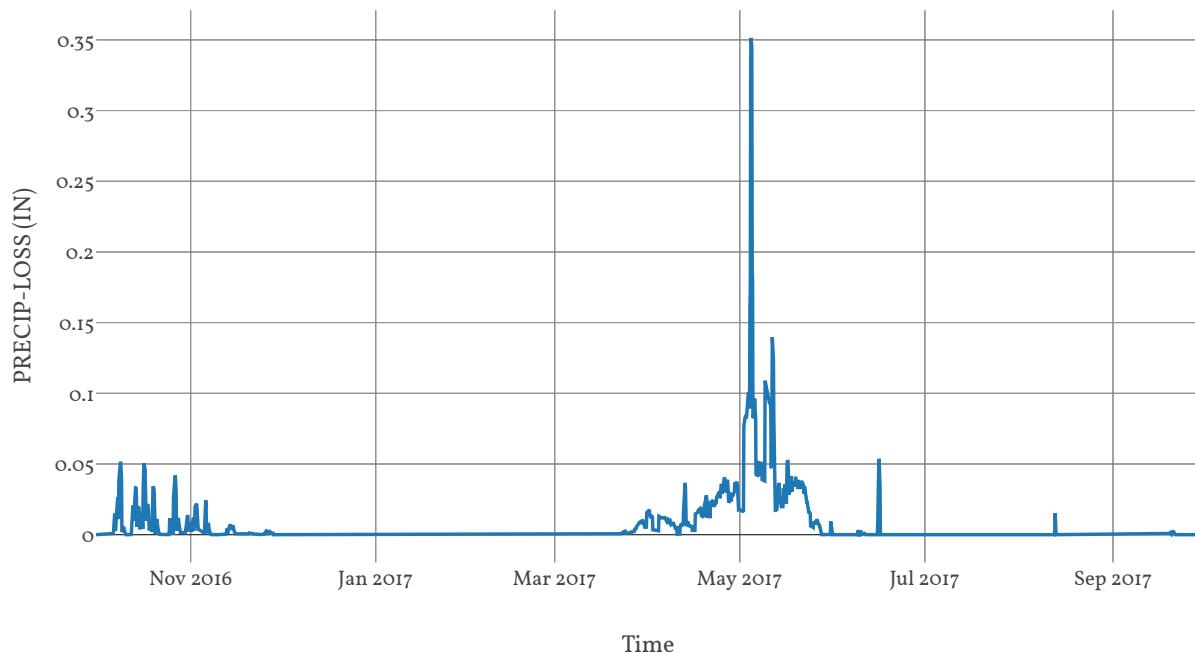
Statistics

Name	Value	Unit
Baseflow Volume	182837.96	Ac-ft
Precipitation Volume	383660.25	Ac-ft
Loss Volume	286675.77	Ac-ft
Excess Volume	1440.58	Ac-ft

Precipitation and Outflow

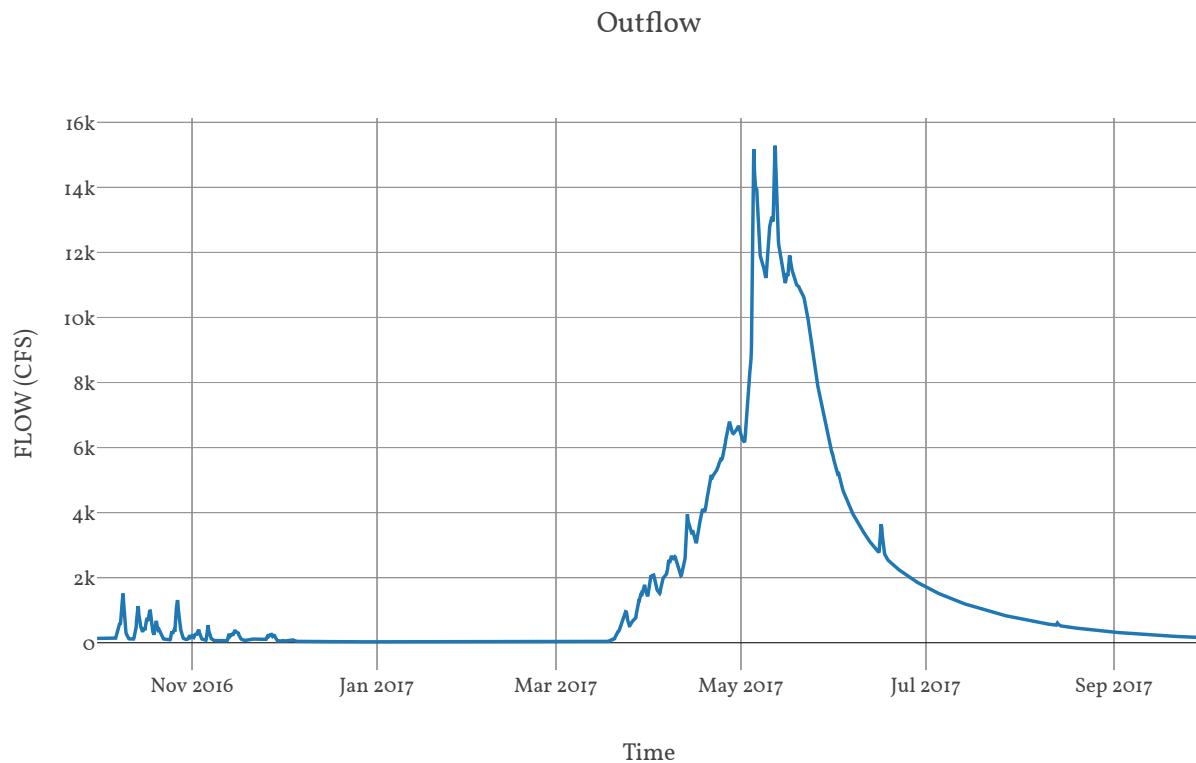


Precipitation Loss



Junction : Okanagan_IN

Downstream : Okanagan



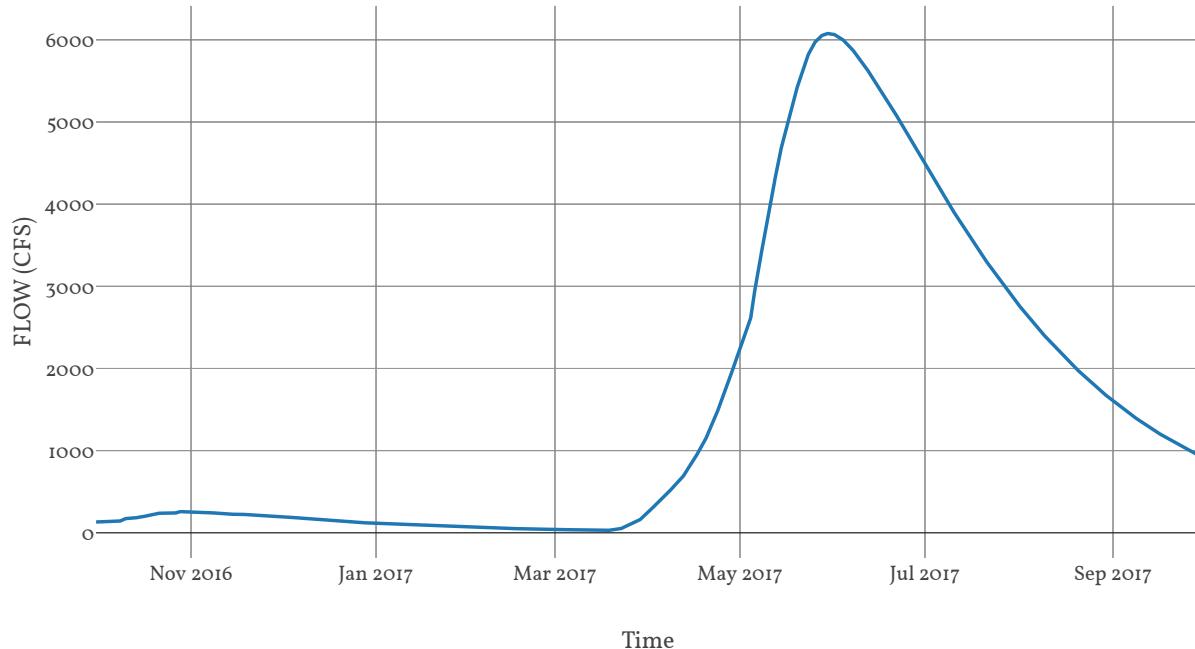
Reservoir : Okanagan

Quality Method : Unspecified

Method : Modified Puls

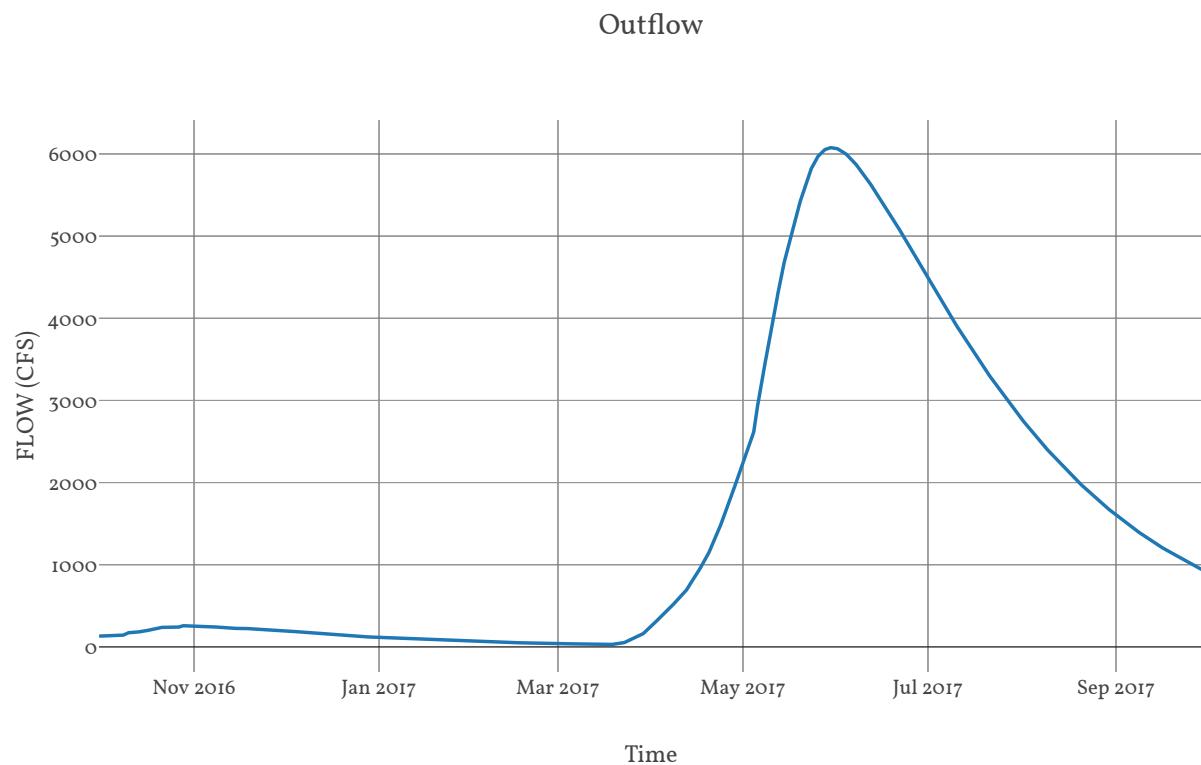
Downstream : Okanagan Nr Penticon

Outflow



Junction : OkanaganNrPenticton

Downstream : SkahaLake_IN



Subbasin : OkanaganRv_So6o

Area : 317.21

Latitude : 49.44

Longitude : -119.61

Downstream : SkahaLake_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	2.64
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.66
Storage Coefficient	5.66

Baseflow

Method

Linear Reservoir

Baseflow Layer List

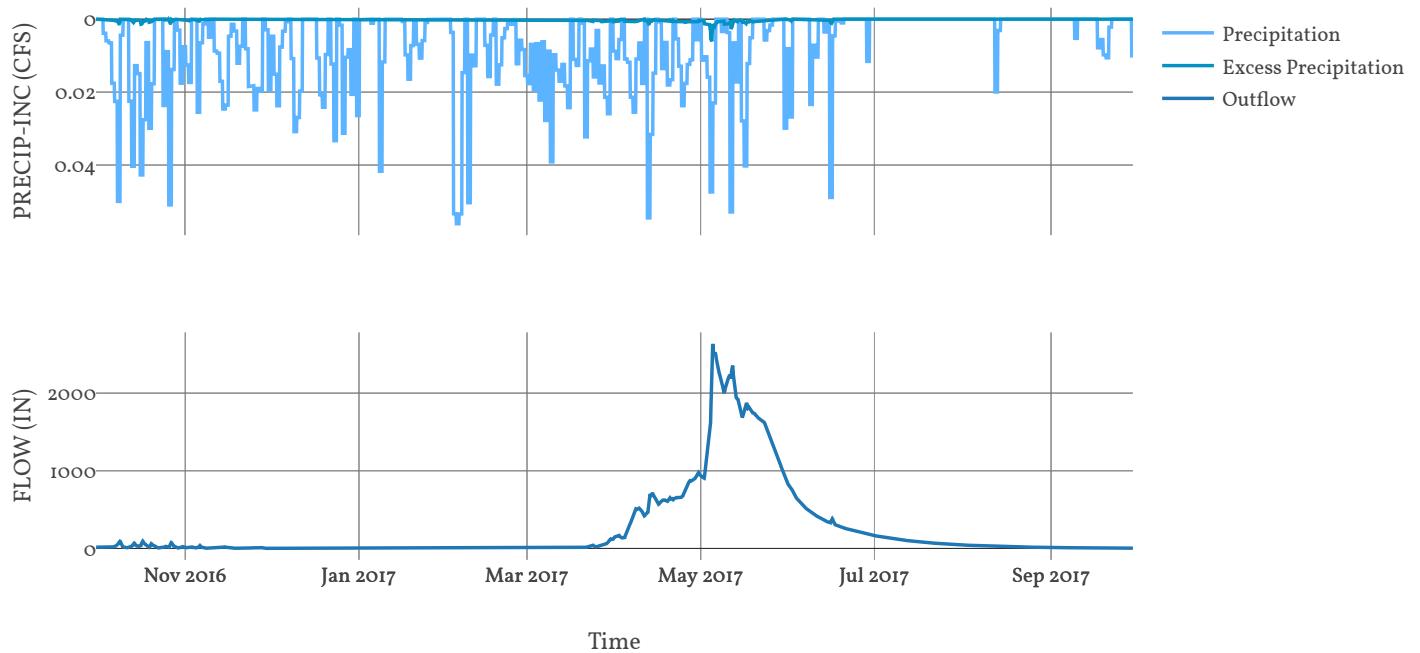
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	113.2
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	566
	Number Steps	1

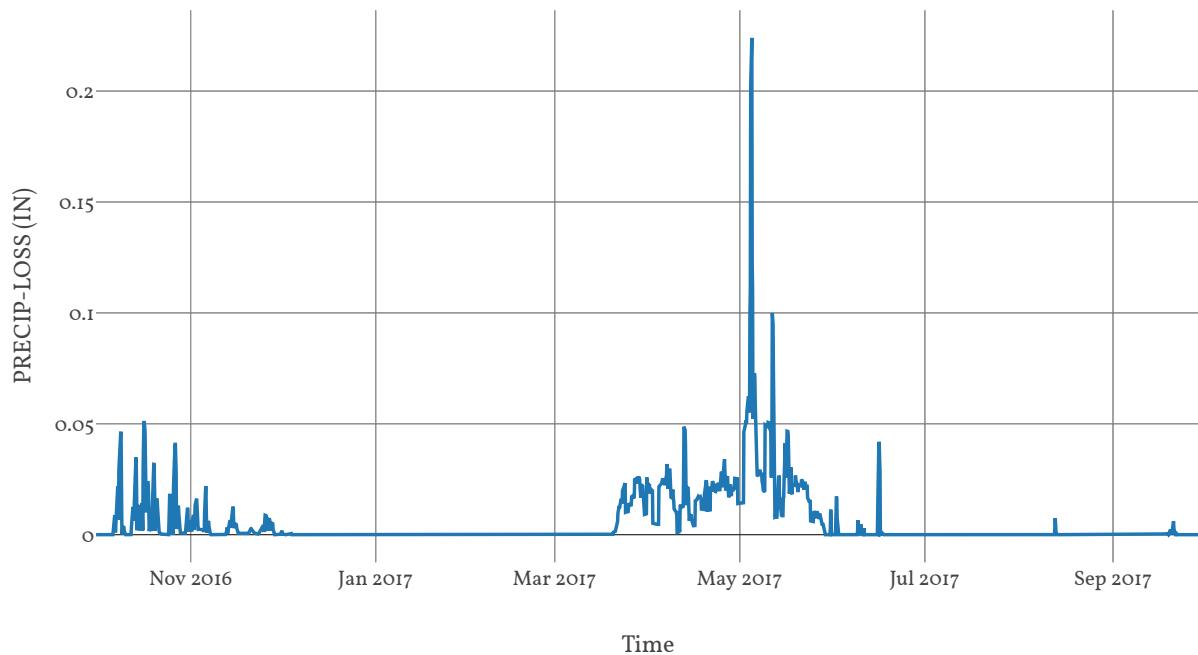
Statistics

Name	Value	Unit
Baseflow Volume	161484.26	Ac-ft
Precipitation Volume	396034.96	Ac-ft
Loss Volume	274136.24	Ac-ft
Excess Volume	7433.44	Ac-ft

Precipitation and Outflow

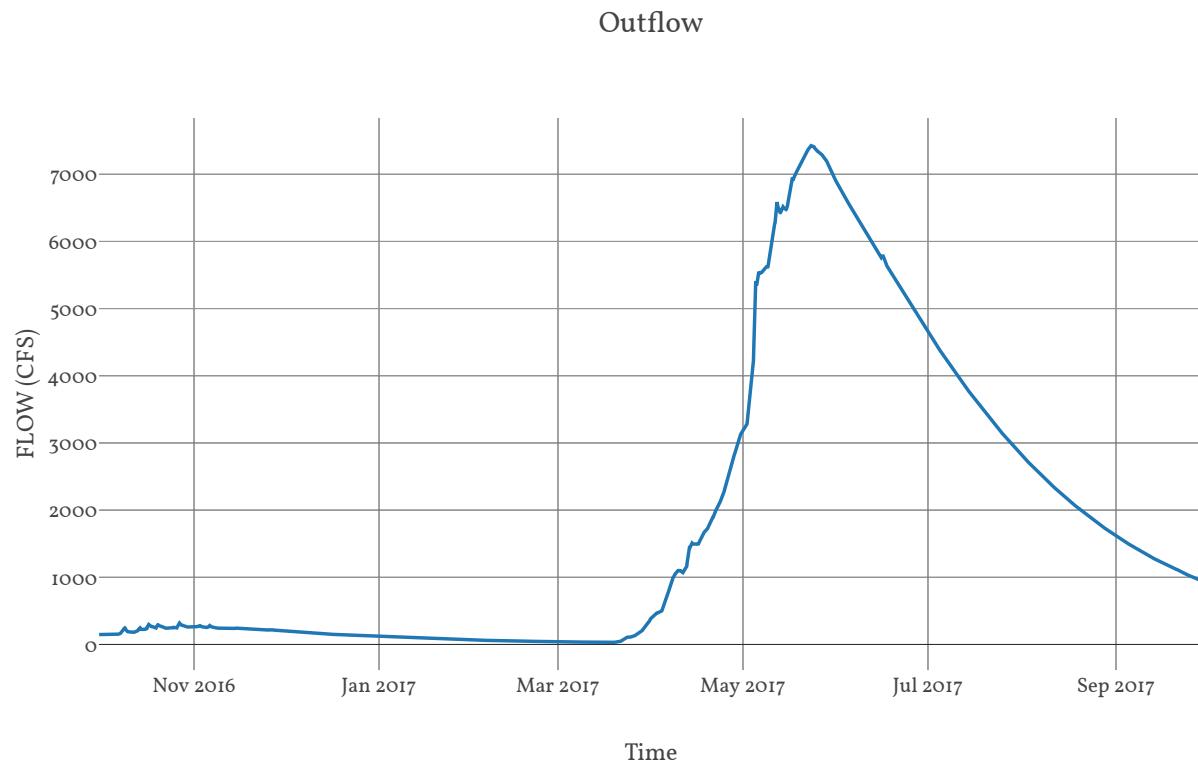


Precipitation Loss



Junction : SkahaLake_IN

Downstream : Skaha Lake



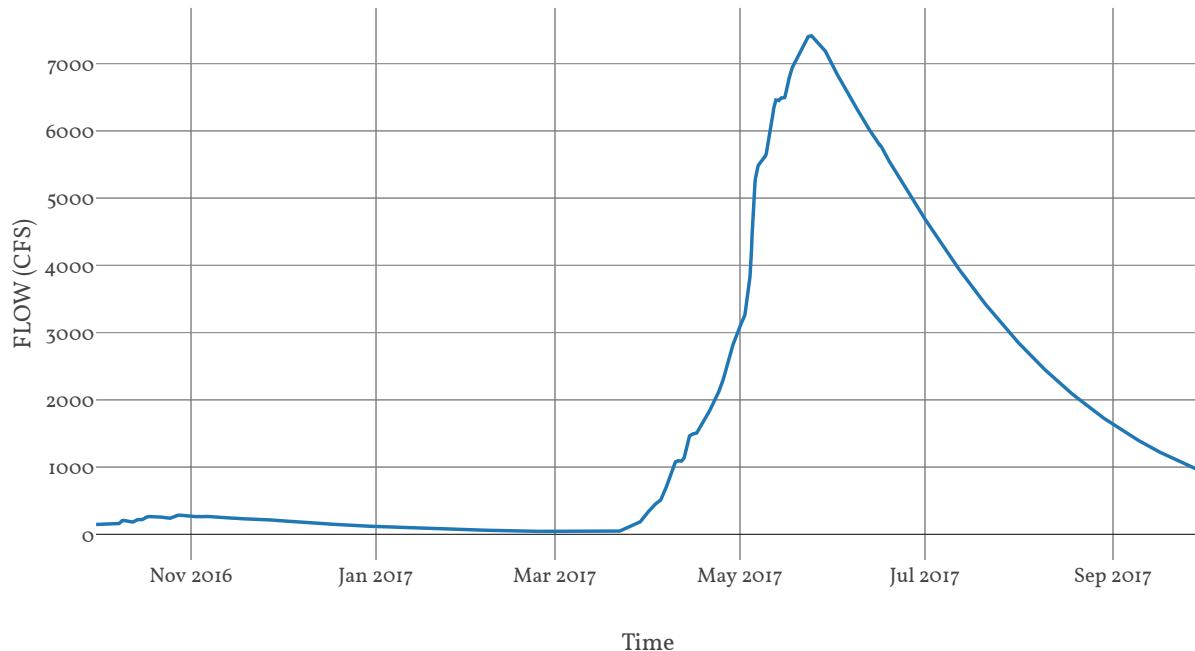
Reservoir : SkahaLake

Quality Method : Unspecified

Method : Modified Puls

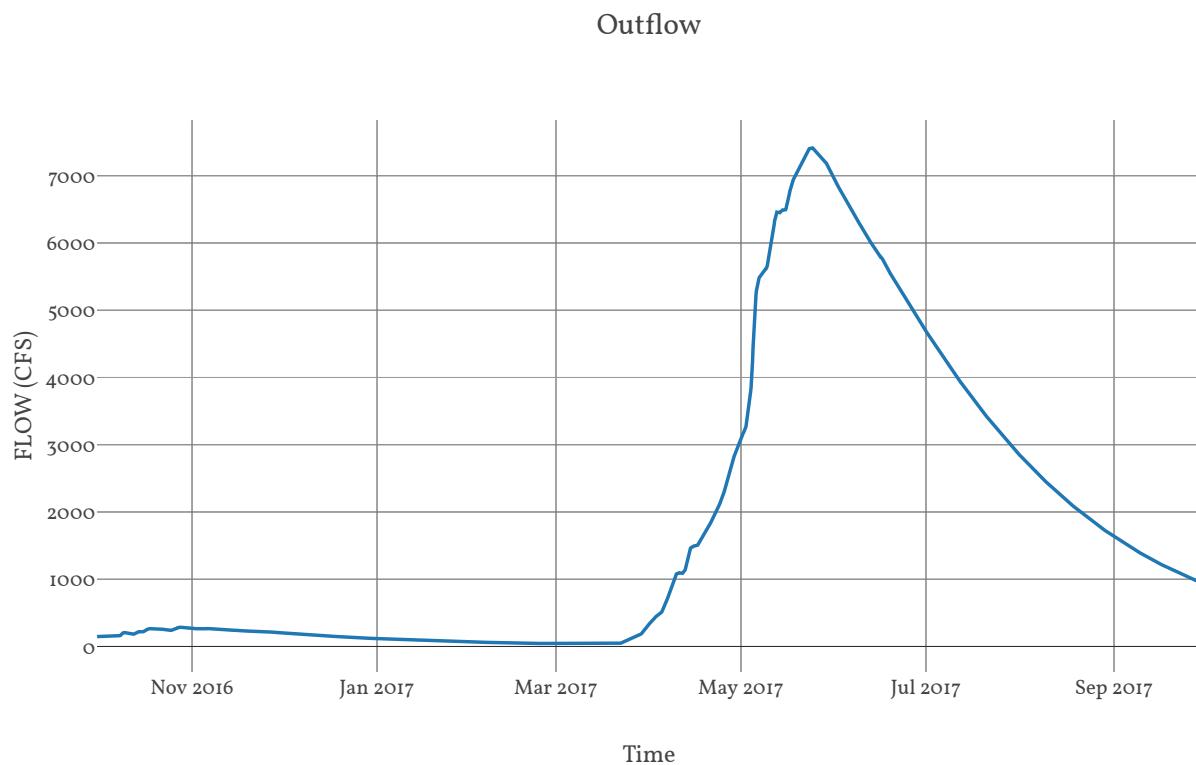
Downstream : Okanagan Nr Okanagan Falls

Outflow



Junction : OkanaganNrOkanaganFalls

Downstream : Vaseux Lake



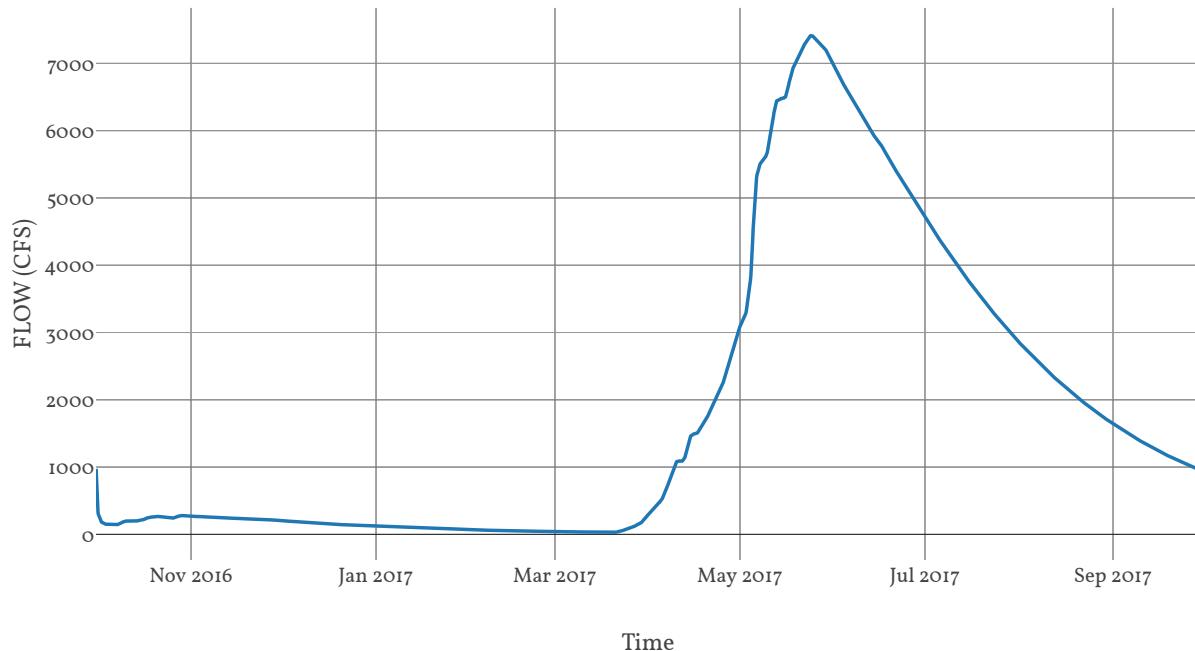
Reservoir : VaseuxLake

Quality Method : Unspecified

Method : Modified Puls

Downstream : VaseuxCk_CF

Outflow



Subbasin : VaseuxCk_Soro

Area : 113.61

Latitude : 49.27

Longitude : -119.32

Downstream : VaseuxCk_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.09
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.05
Storage Coefficient	5.05

Baseflow

Method

Linear Reservoir

Baseflow Layer List

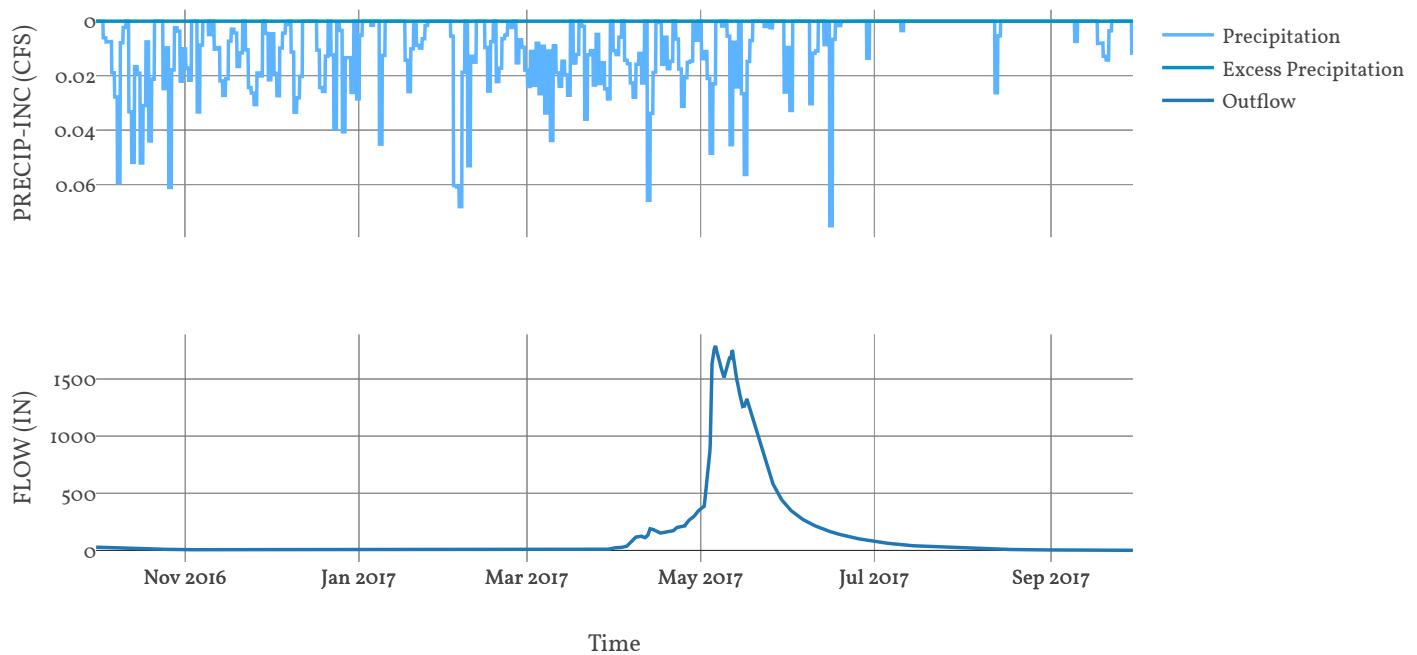
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	101
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.25
	Layer Number	2
	Storage Coefficient	505
	Number Steps	1

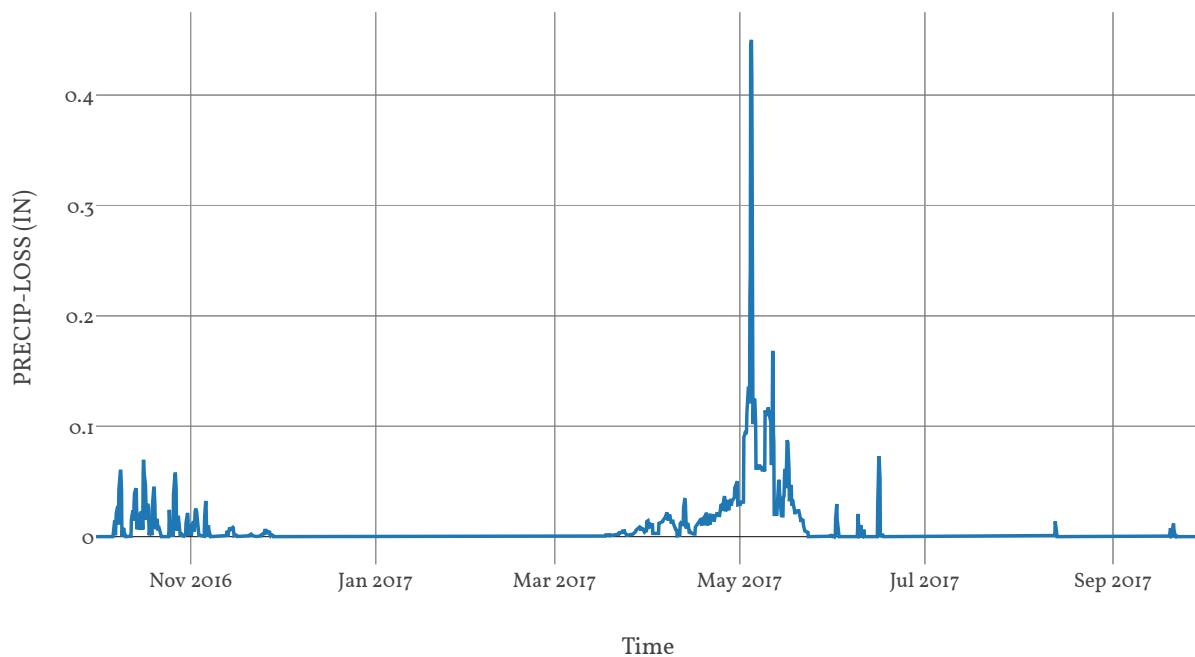
Statistics

Name	Value	Unit
Baseflow Volume	89917.04	Ac-ft
Precipitation Volume	171228.87	Ac-ft
Loss Volume	131506.15	Ac-ft
Excess Volume	118.46	Ac-ft

Precipitation and Outflow

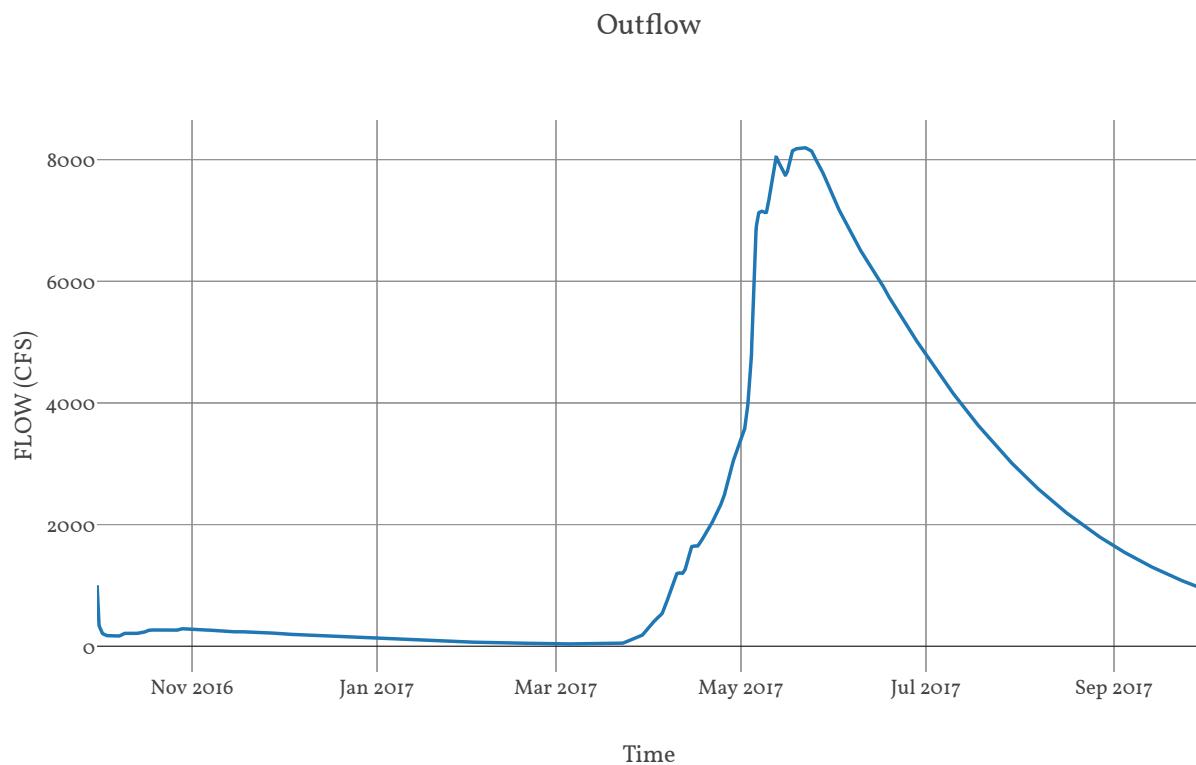


Precipitation Loss



Junction : VaseuxCk_CF

Downstream : OkanaganRv_R050



Reach : OkanaganRv_Ro50

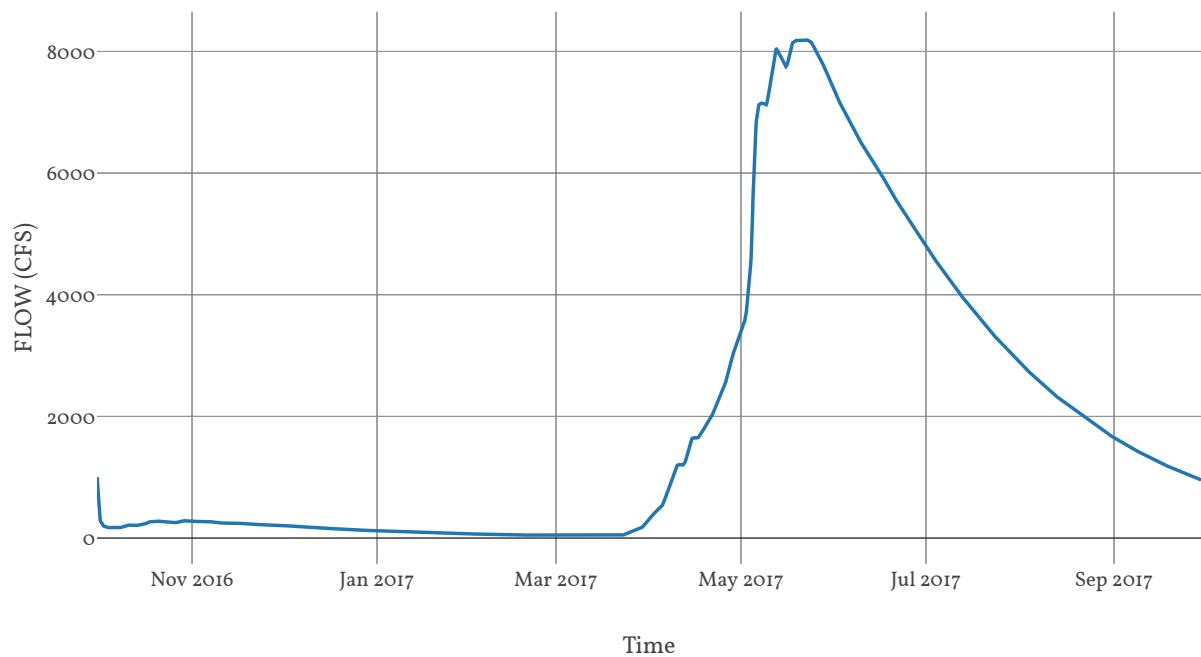
Loss Method : None

Downstream : Okanagan Nr Oliver

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 54748
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name OkanaganRv_Ro50
	Energy Slope 0
	Right Mannings N 0.15

Outflow



Subbasin : OkanaganRv_So50

Area : 178.22

Latitude : 49.23

Longitude : -119.59

Downstream : Okanagan Nr Oliver

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	1.18
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	6.46
Storage Coefficient	6.46

Baseflow

Method

Linear Reservoir

Baseflow Layer List

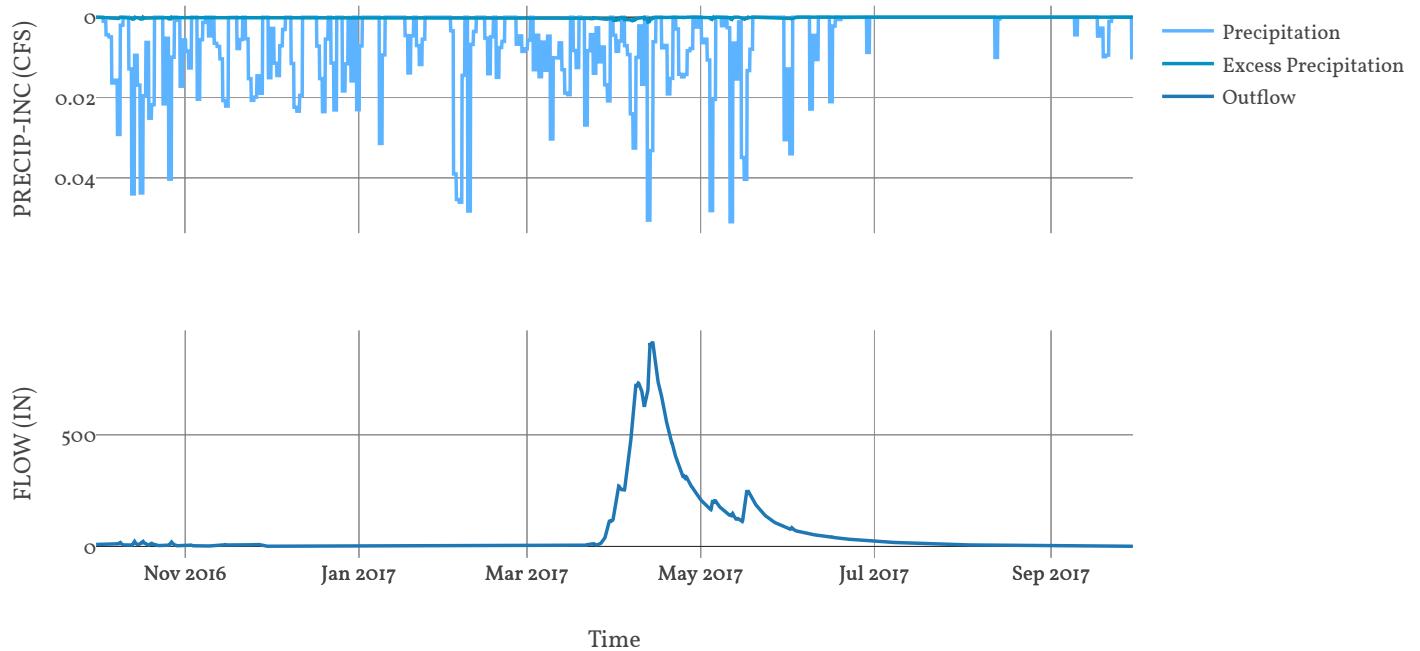
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	129.2
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	646
	Number Steps	1

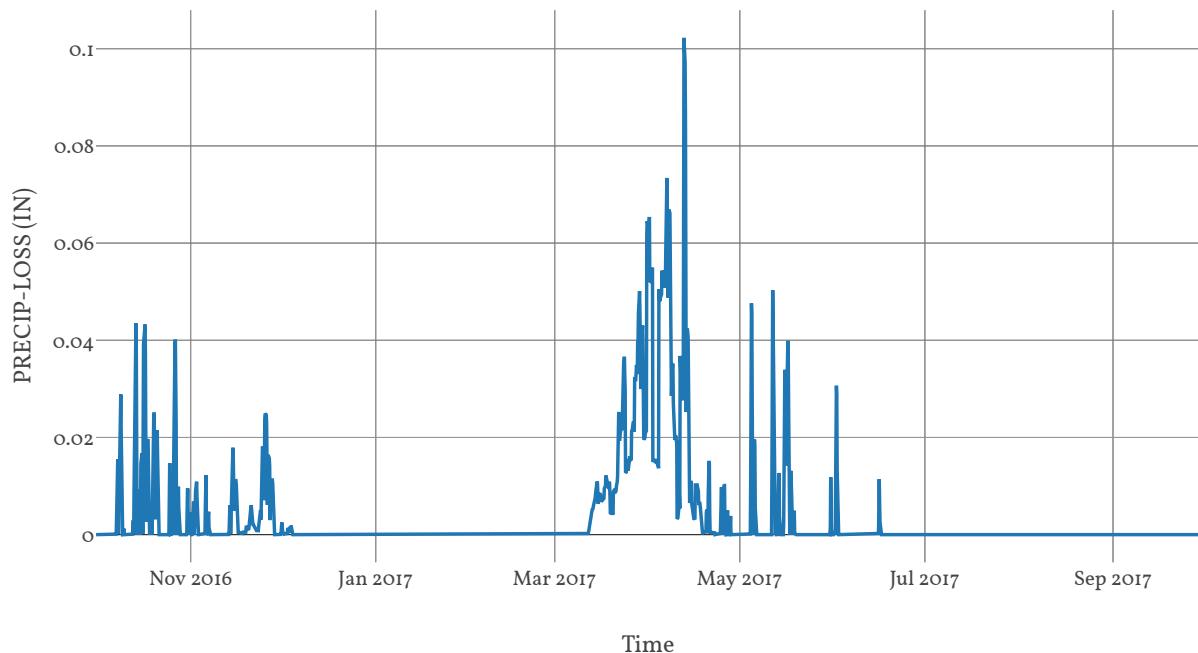
Statistics

Name	Value	Unit
Baseflow Volume	42739.9	Ac-ft
Precipitation Volume	179653.82	Ac-ft
Loss Volume	107116.86	Ac-ft
Excess Volume	1279.07	Ac-ft

Precipitation and Outflow

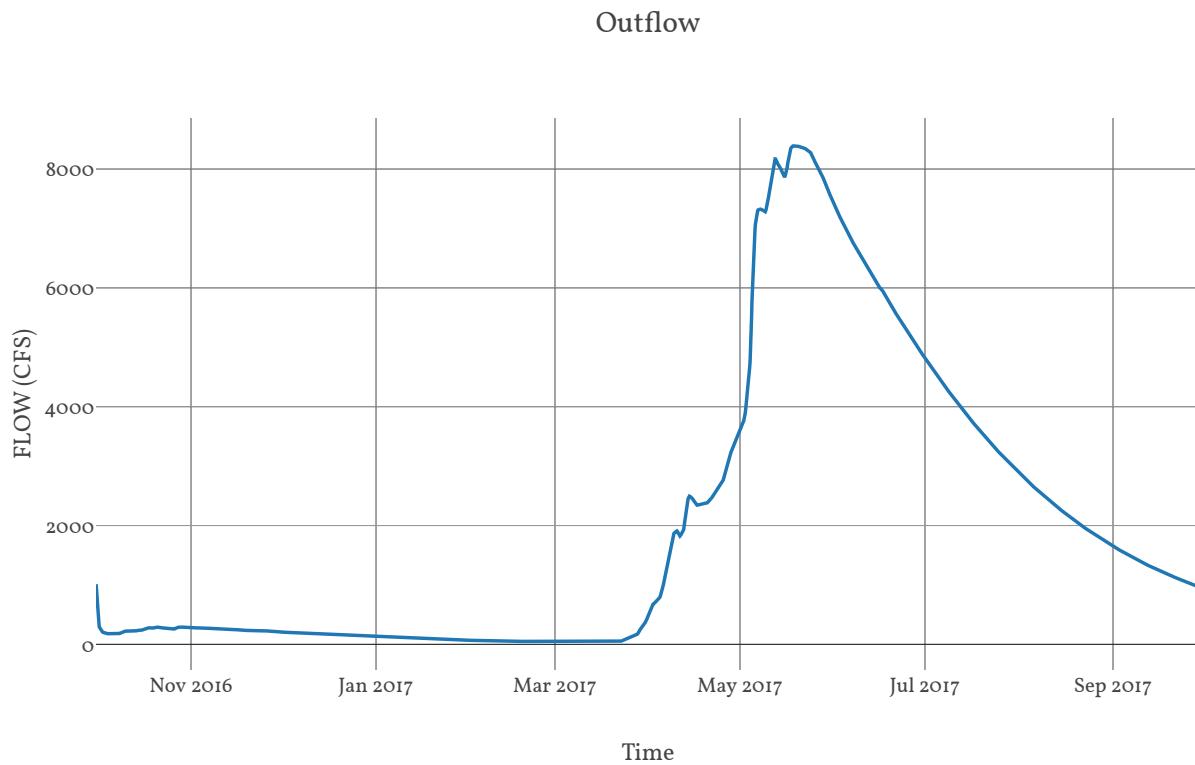


Precipitation Loss



Junction : OkanaganNrOliver

Downstream : Osoyoos Lake



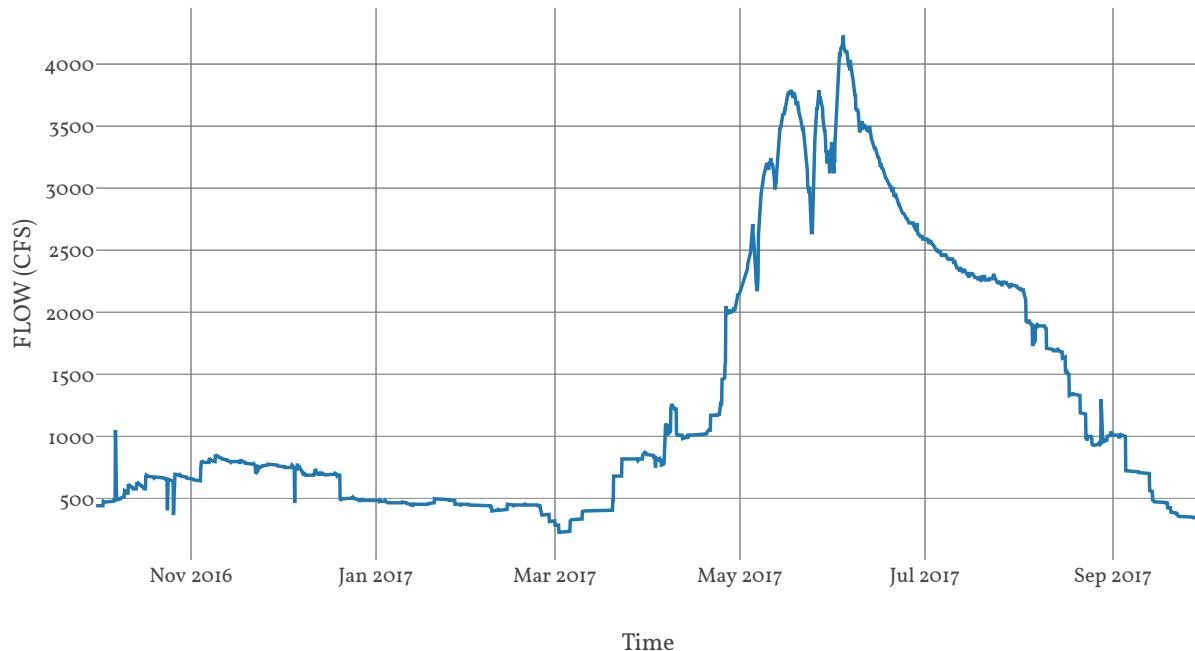
Reservoir : OsoyoosLake

Quality Method : Unspecified

Method : Specified Outflow

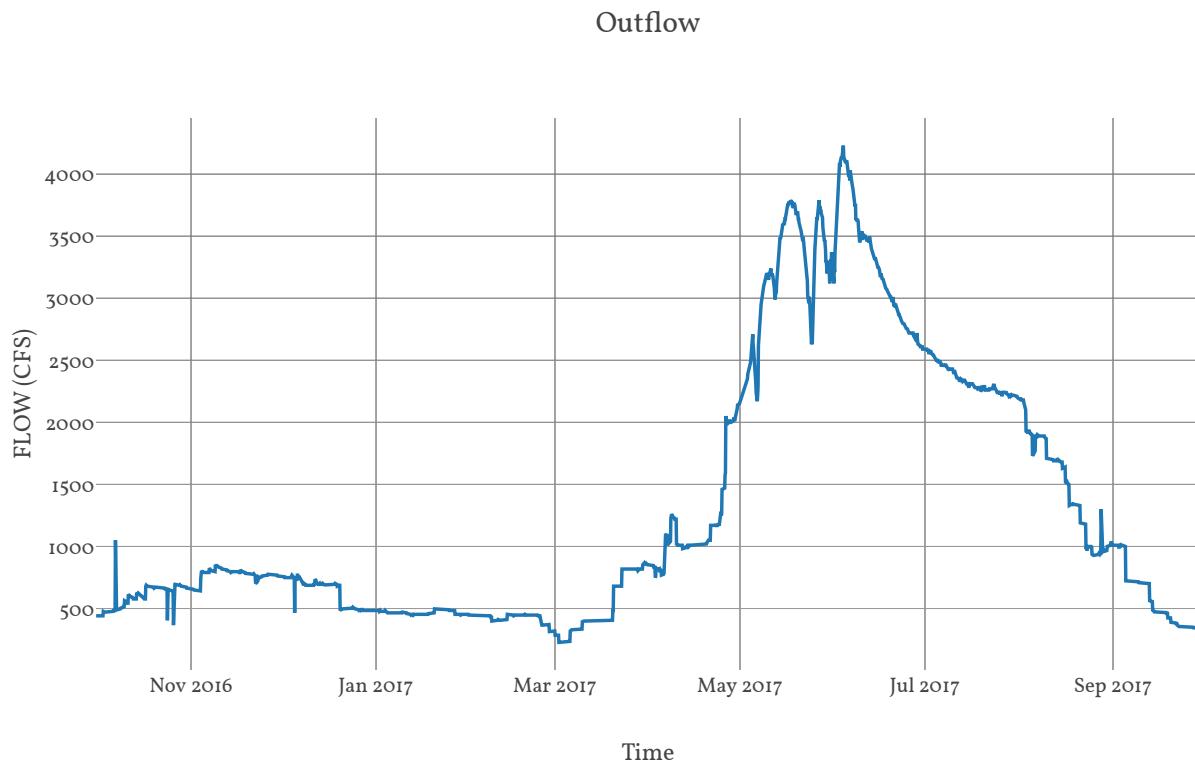
Downstream : Okanagan Nr Oroville

Outflow



Junction : OkanaganNrOroville

Downstream : Similkameen_CF



Subbasin : OkanaganRv_So4o

Area : 267.05

Latitude : 49.03

Longitude : -119.36

Downstream : Similkameen_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	3.87
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	6.22
Storage Coefficient	6.22

Baseflow

Method

Linear Reservoir

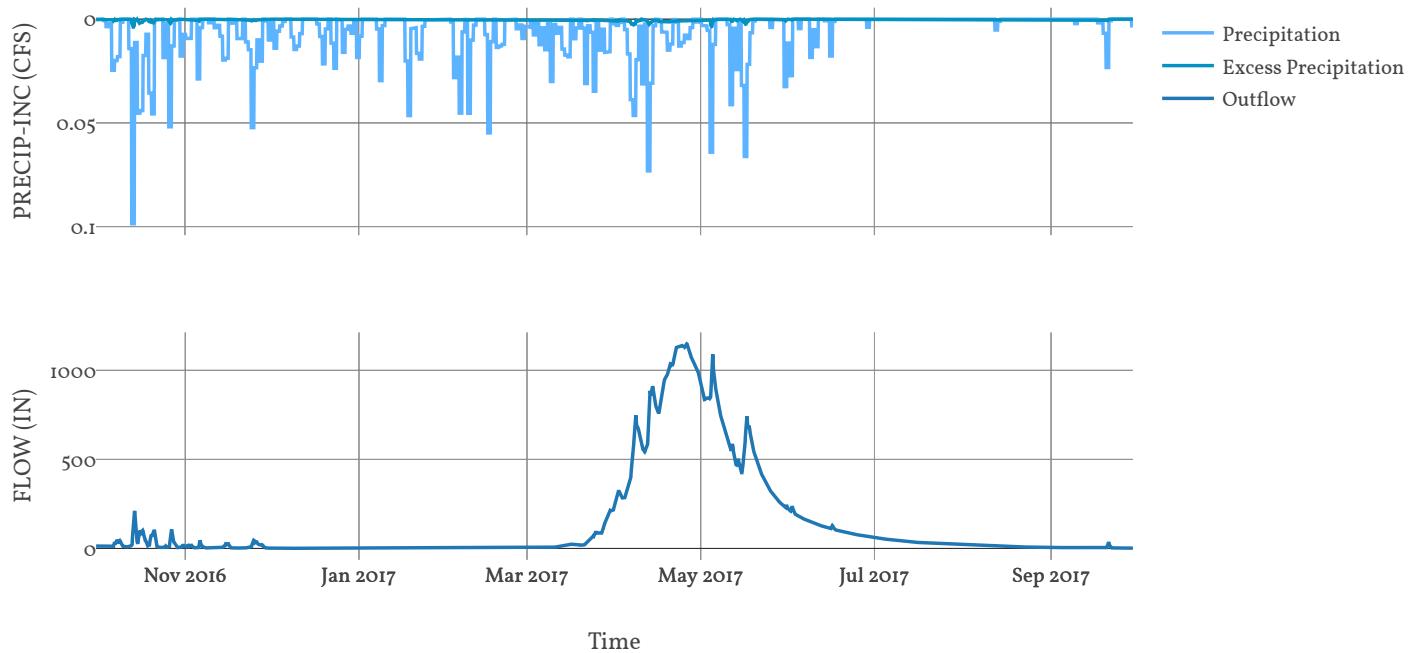
Baseflow Layer List

I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	124.4
	Number Steps	1
2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	622
	Number Steps	1

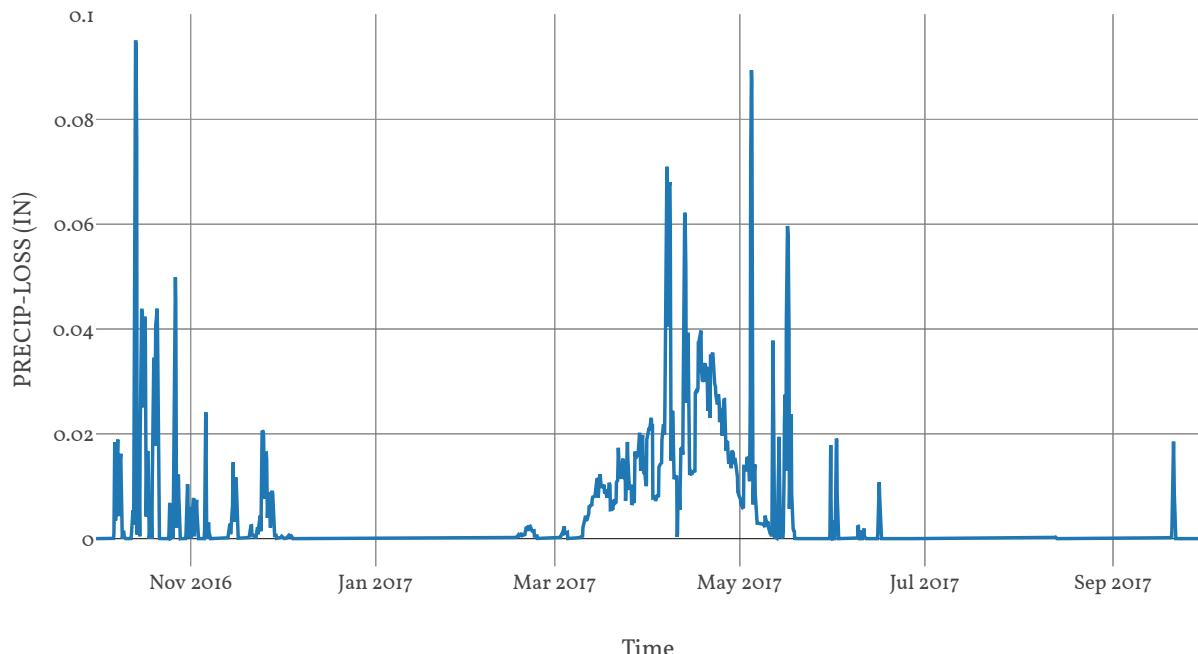
Statistics

Name	Value	Unit
Baseflow Volume	88969.12	Ac-ft
Precipitation Volume	289764.22	Ac-ft
Loss Volume	189359.08	Ac-ft
Excess Volume	7623.21	Ac-ft

Precipitation and Outflow

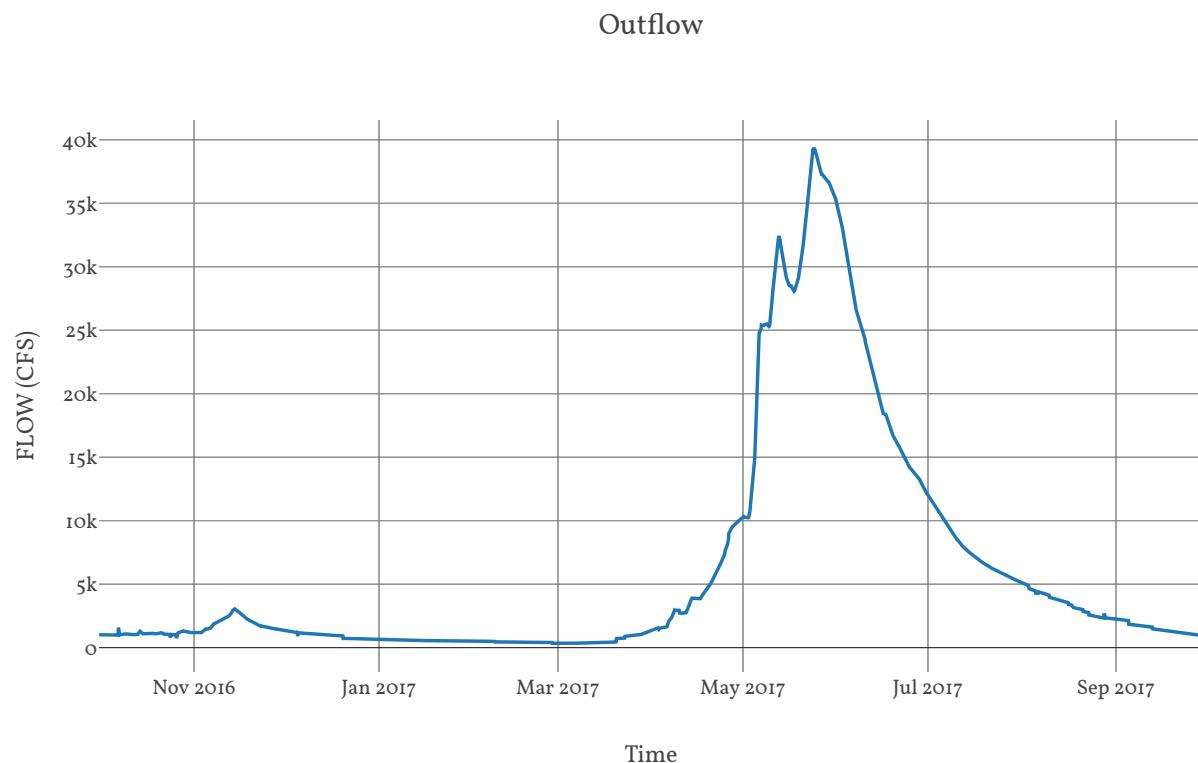


Precipitation Loss



Junction : Similkameen_CF

Downstream : OkanaganRv_R035



Reach : OkanaganRv_Ro35

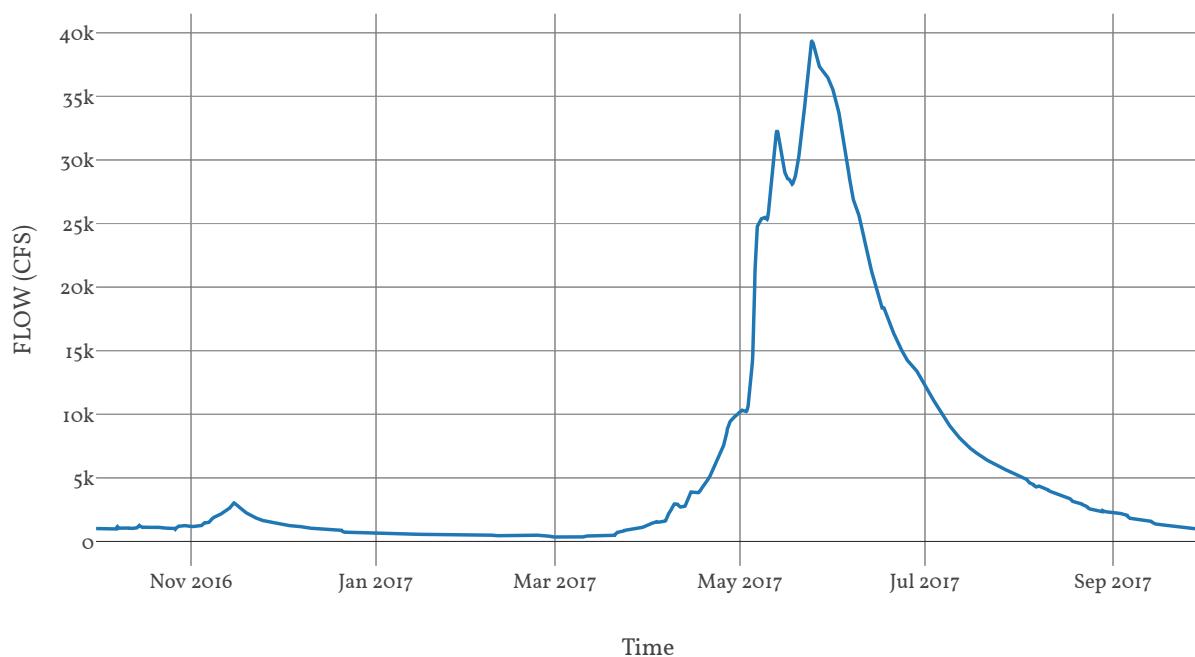
Loss Method : None

Downstream : BonaparteCk_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04 Nvalue Ratio 1 Length 89737 Max Depth Difference 0 Left Mannings N 0.15 Channel Type Eight Point Mannings N 0.04 Cross Section Name OkanaganRv_Ro35 Energy Slope 0 Right Mannings N 0.15

Outflow



Subbasin : BonaparteCk_SoI0

Area : 143.3

Observed Hydrograph : Bonaparte creek at tonasket

Latitude : 48.68

Longitude : -119.19

Downstream : BonaparteCk_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.48
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	7.57
Storage Coefficient	7.57

Baseflow

Method

Linear Reservoir

Baseflow Layer List

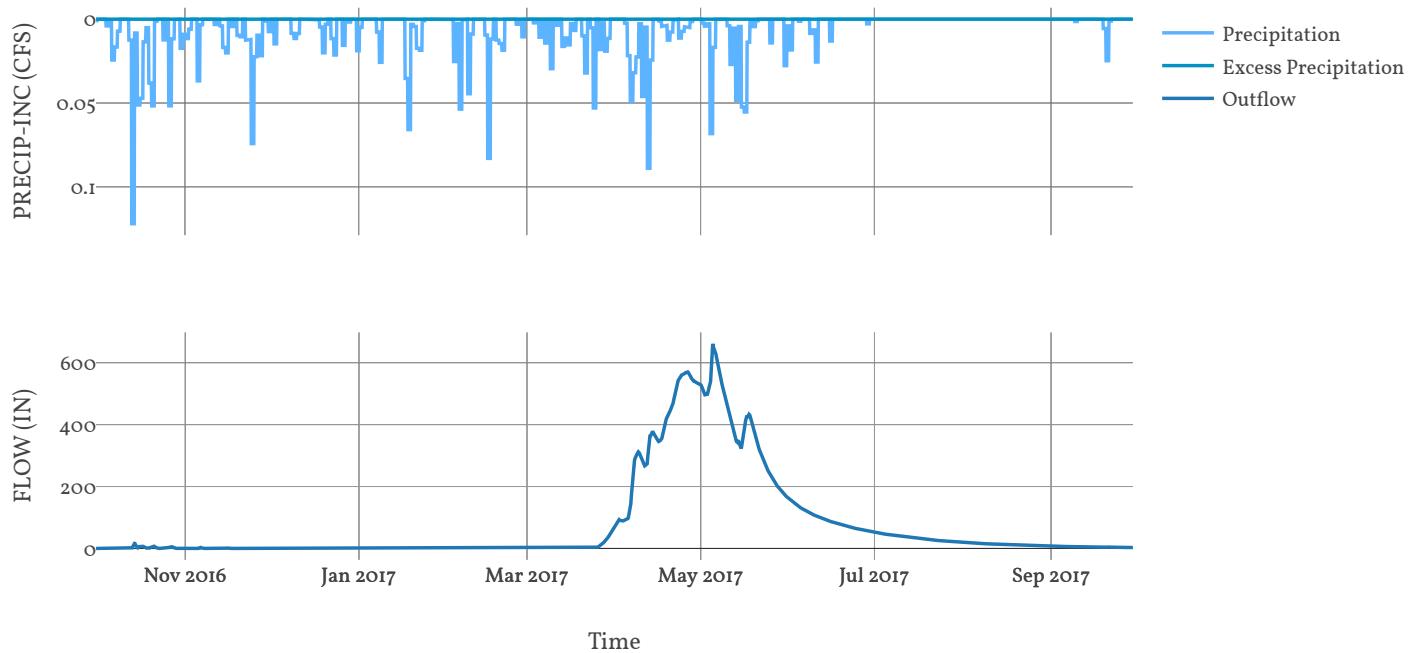
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	151.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	2
	Storage Coefficient	757
	Number Steps	1

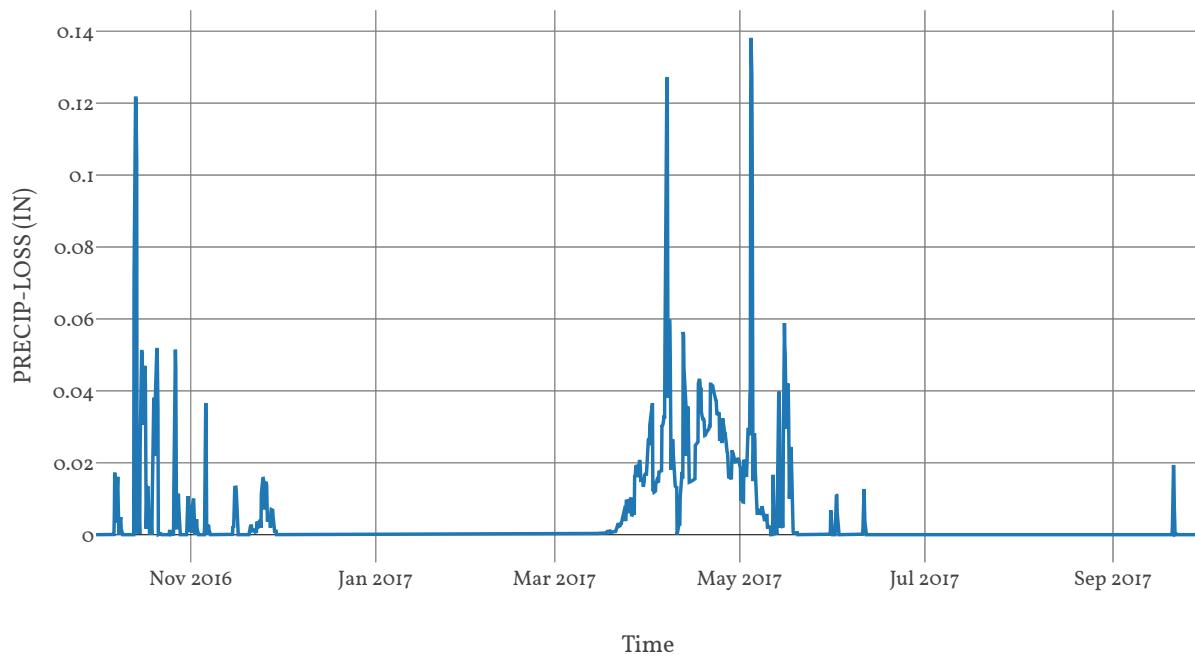
Statistics

Name	Value	Unit
Baseflow Volume	53349.89	Ac-ft
Precipitation Volume	153085.56	Ac-ft
Loss Volume	109470.43	Ac-ft
Excess Volume	527.99	Ac-ft

Precipitation and Outflow

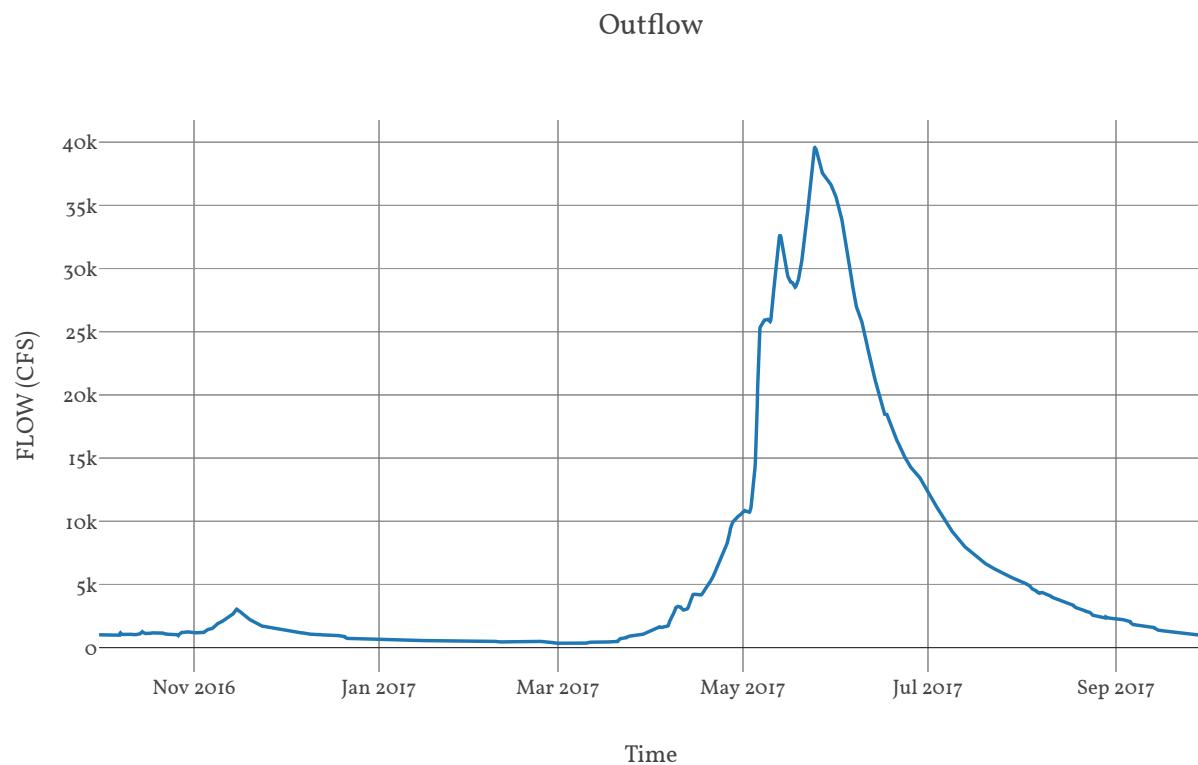


Precipitation Loss



Junction : BonaparteCk_CF

Downstream : OkanaganRv_Ro30



Reach : OkanaganRv_Ro30

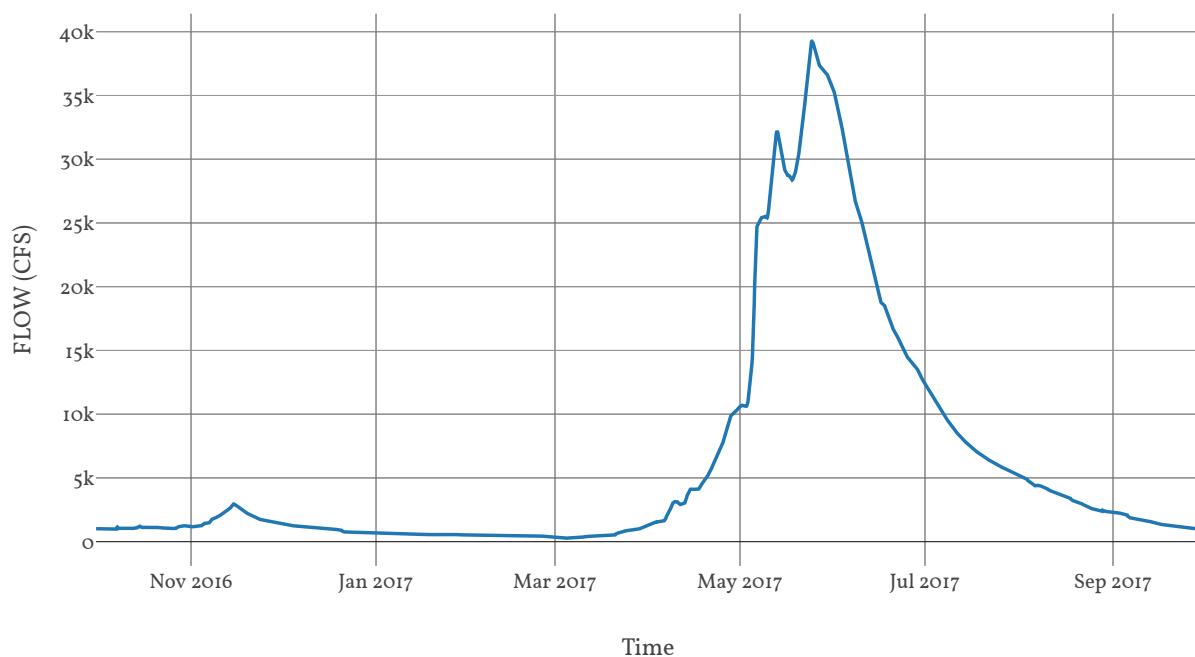
Loss Method : None

Downstream : Okanagan Nr Tonasket

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	1
	Length
	32429
	Max Depth Difference
	0
	Left Mannings N
	0.15
	Channel Type
	Eight Point
	Mannings N
	0.04
	Cross Section Name
	OkanaganRv_Ro30
	Energy Slope
	0
	Right Mannings N
	0.15

Outflow



Subbasin : OkanaganRv_So30

Area : 373.49

Latitude : 48.81

Longitude : -119.42

Downstream : Okanagan Nr Tonasket

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.9
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	11.61
Storage Coefficient	11.61

Baseflow

Method

Linear Reservoir

Baseflow Layer List

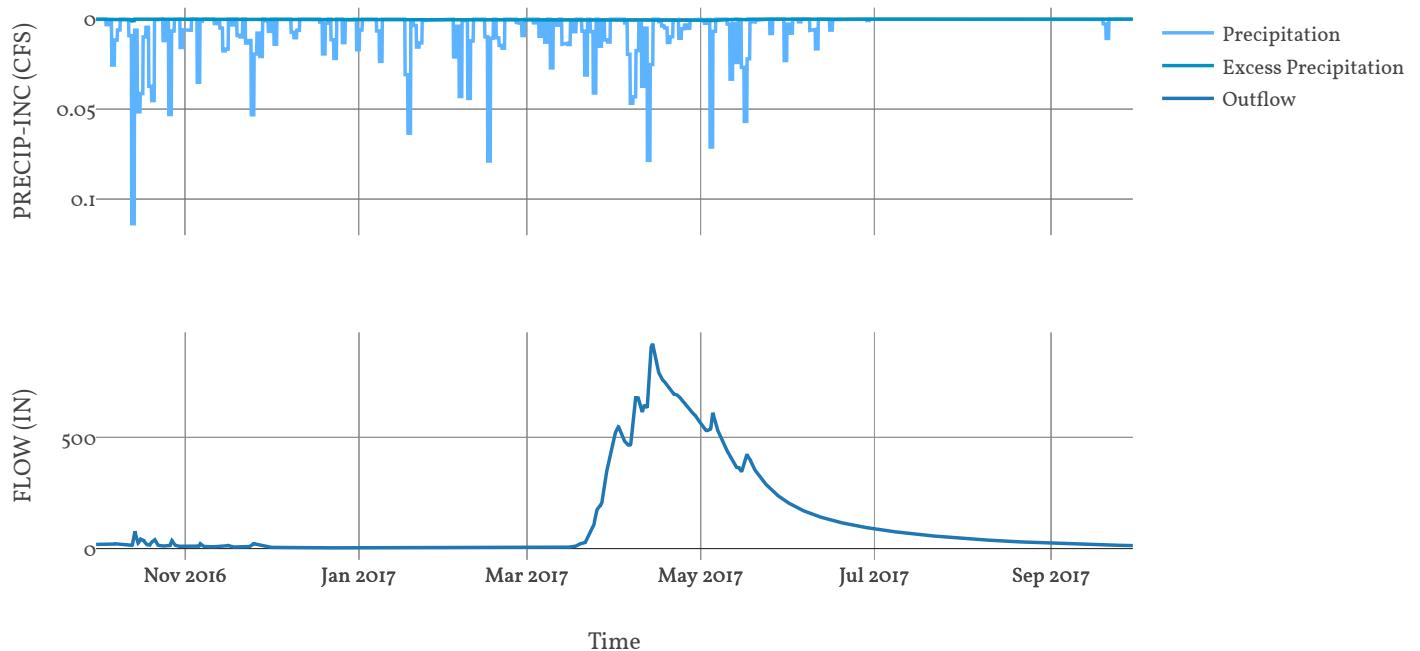
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	232.2
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	1161
	Number Steps	1

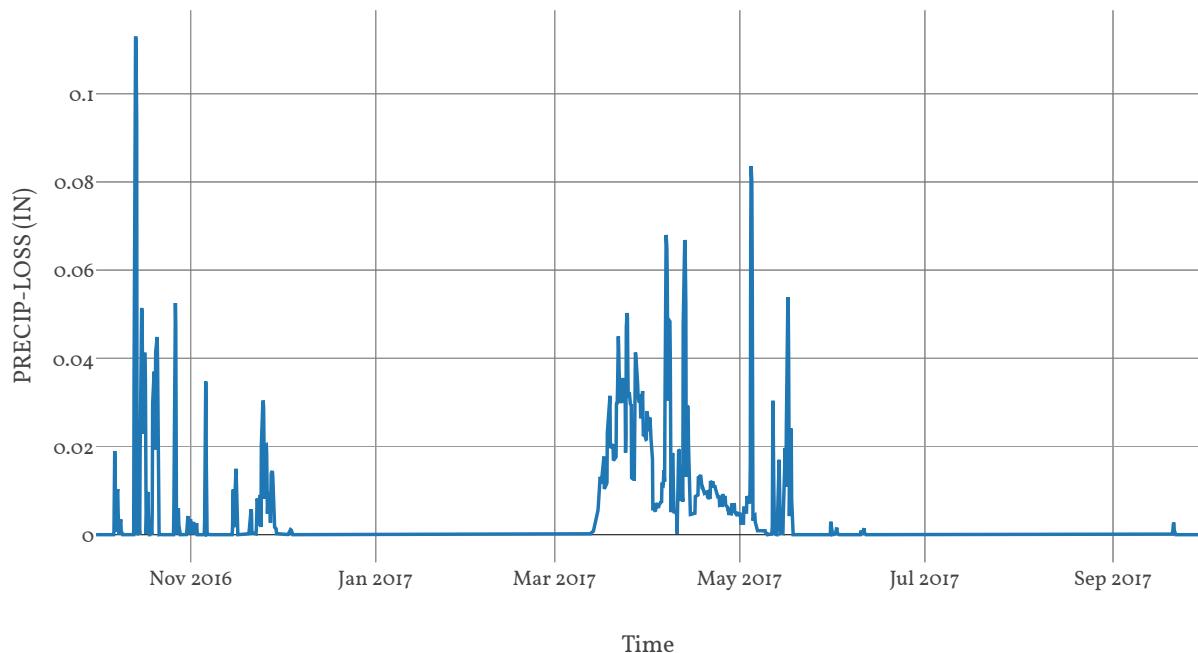
Statistics

Name	Value	Unit
Baseflow Volume	82928.63	Ac-ft
Precipitation Volume	349617.19	Ac-ft
Loss Volume	229795.16	Ac-ft
Excess Volume	2086.94	Ac-ft

Precipitation and Outflow



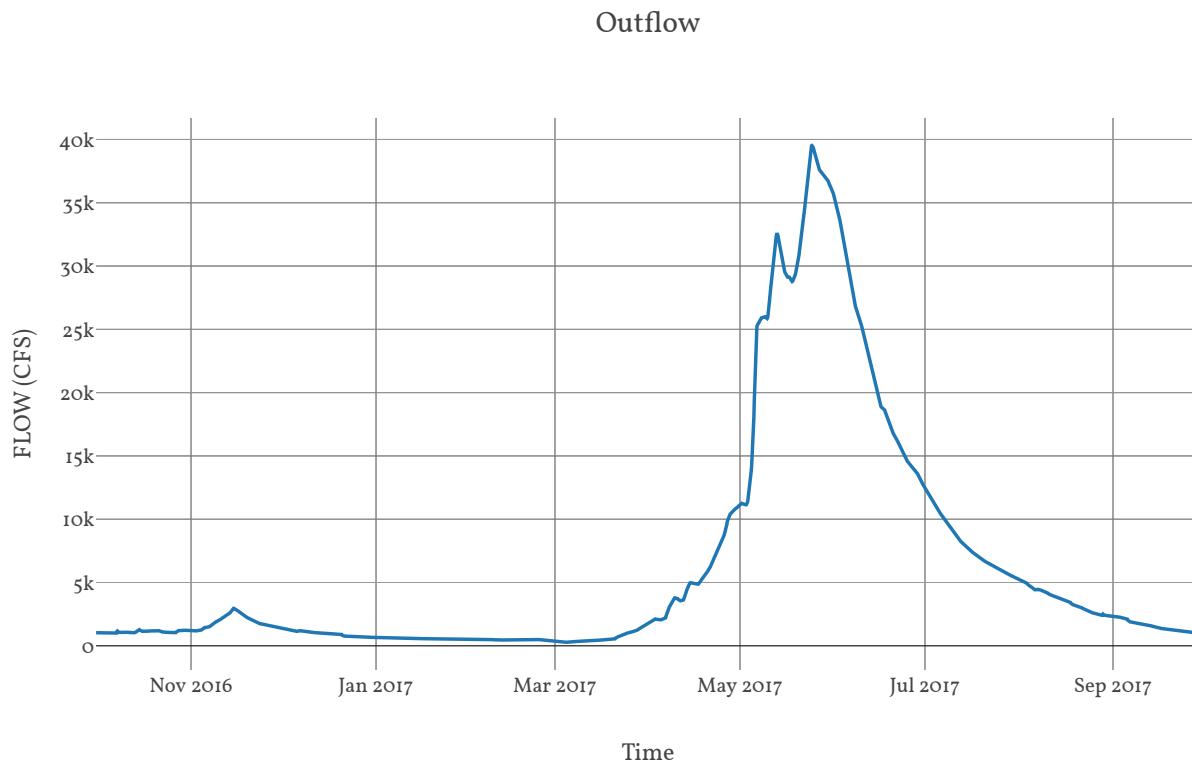
Precipitation Loss



Junction : OkanaganNrTonasket

Observed Hydrograph : Okanogan river near tonasket

Downstream : OkanaganRv_Ro25



Reach : OkanaganRv_Ro25

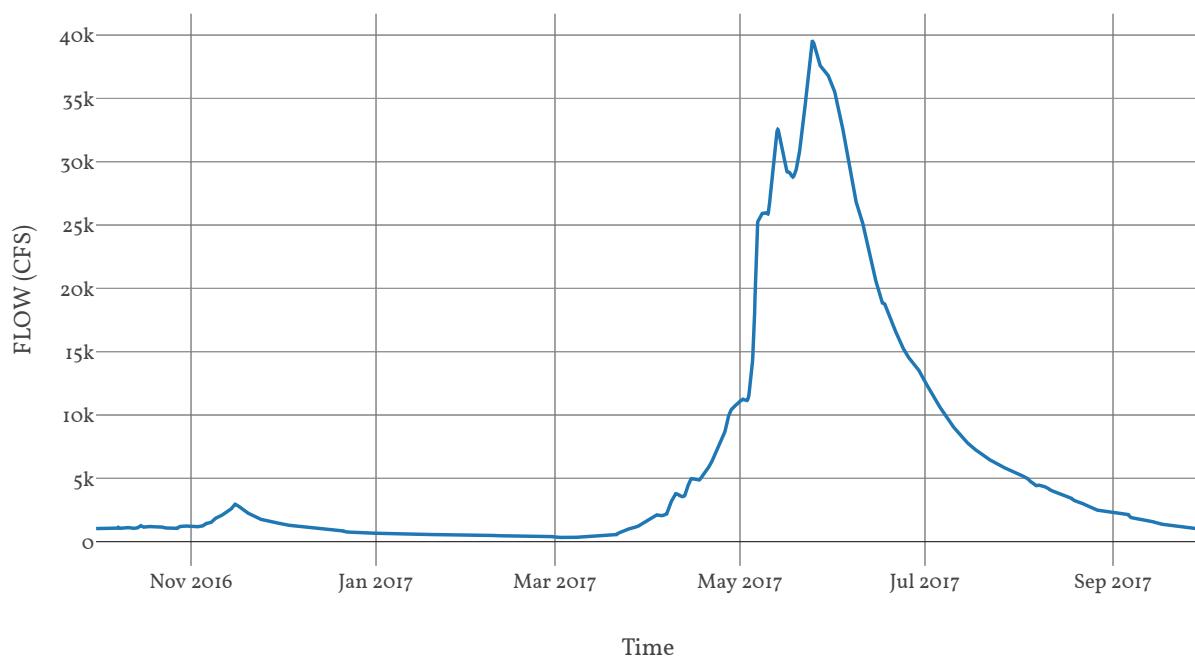
Loss Method : None

Downstream : OmakCk_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 100630
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name OkanaganRv_Ro25
	Energy Slope 0
	Right Mannings N 0.15

Outflow



Subbasin : OmakCk_So1o

Area : 119.41

Latitude : 48.36

Longitude : -119.23

Downstream : Omak Ck

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.09
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	6.28
Storage Coefficient	6.28

Baseflow

Method

Linear Reservoir

Baseflow Layer List

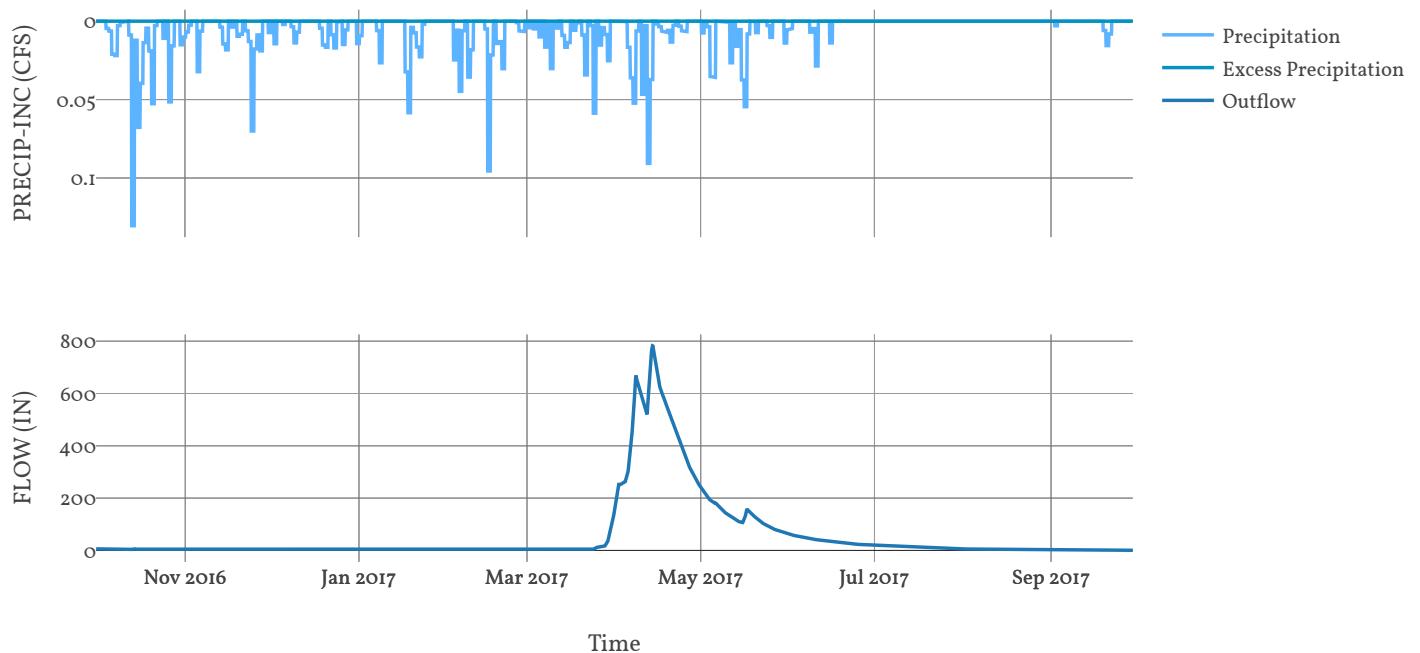
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	125.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	628
	Number Steps	1

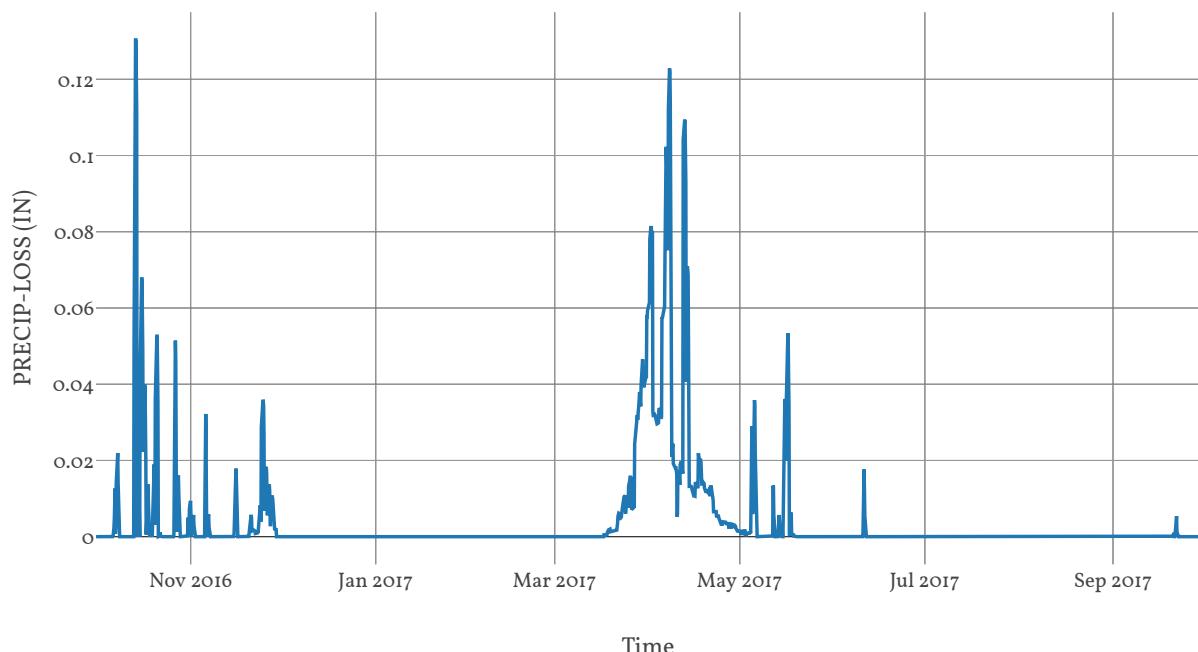
Statistics

Name	Value	Unit
Baseflow Volume	39201.1	Ac-ft
Precipitation Volume	122386.2	Ac-ft
Loss Volume	85110.11	Ac-ft
Excess Volume	76.67	Ac-ft

Precipitation and Outflow



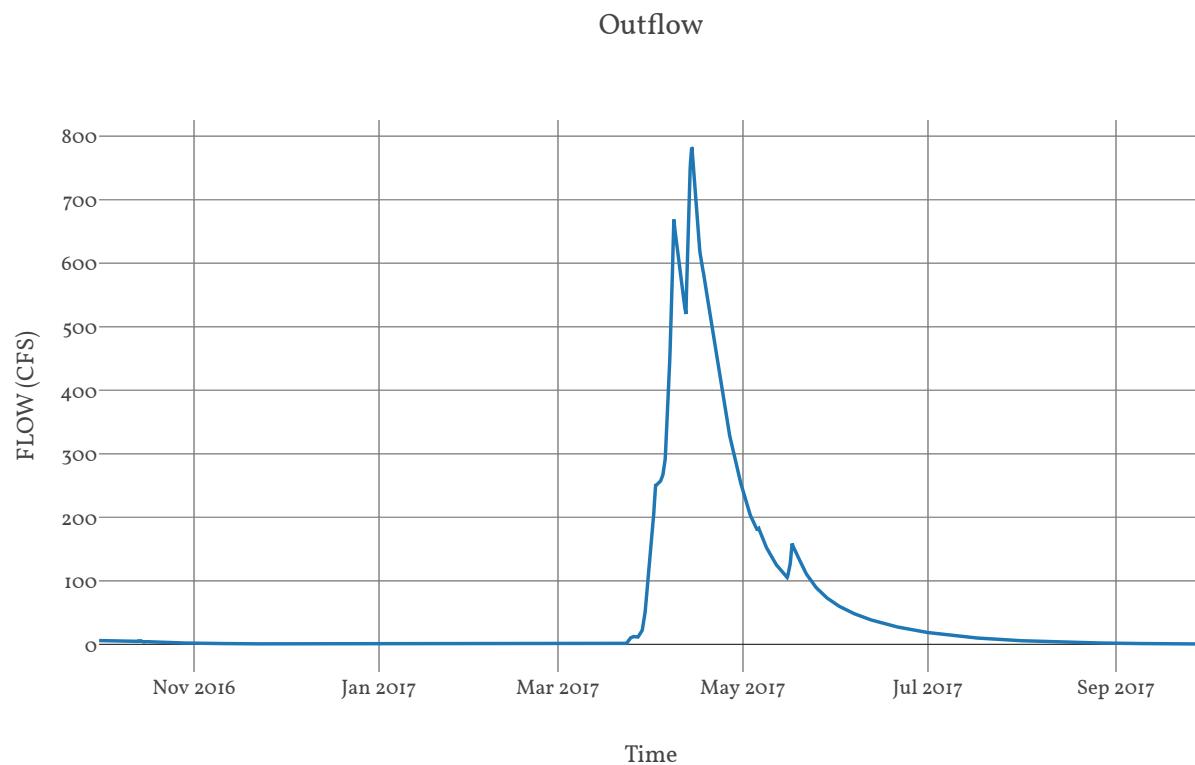
Precipitation Loss



Junction : OmakCk

Observed Hydrograph : Omak creek near omak

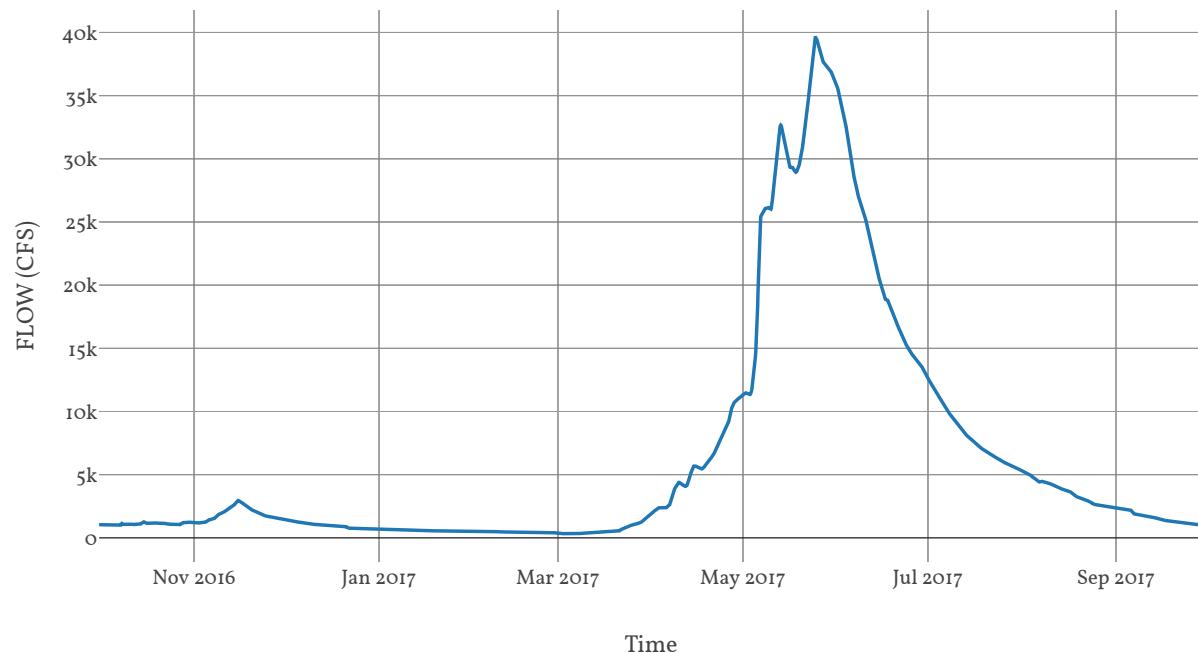
Downstream : OmakCk_CF



Junction : OmakCk_CF

Downstream : OkanaganRv_R023

Outflow



Reach : OkanaganRv_Ro23

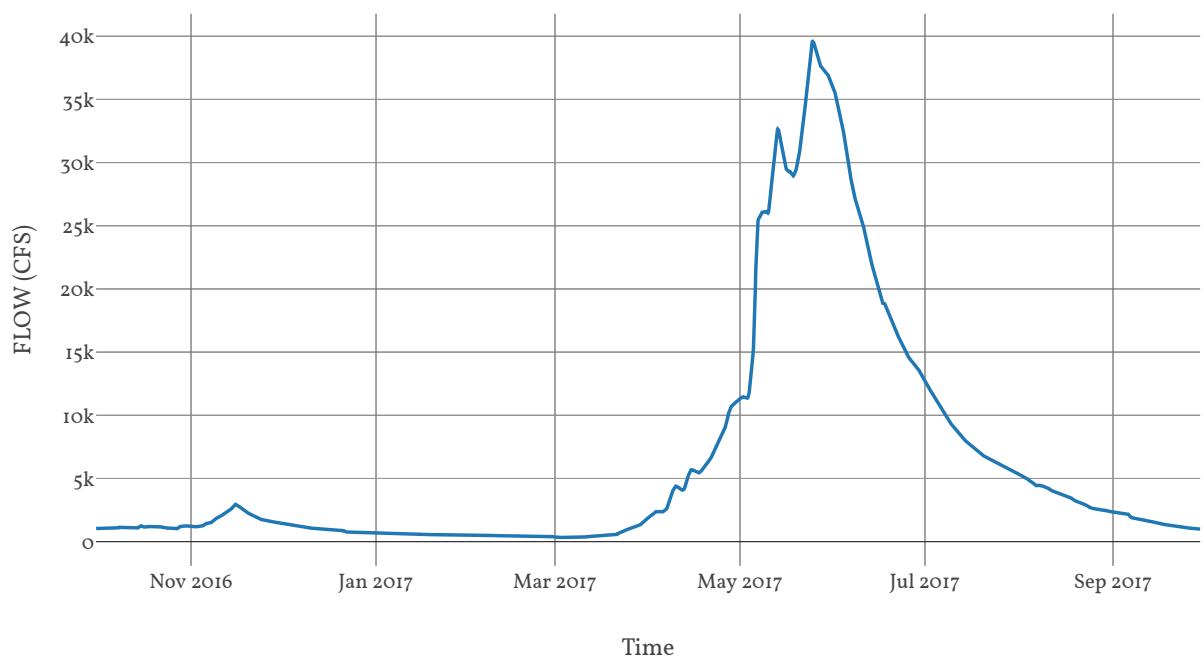
Loss Method : None

Downstream : SalmonCk_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	1
	Length
	33628
	Max Depth Difference
	0
	Left Mannings N
	0.15
	Channel Type
	Eight Point
	Mannings N
	0.04
	Cross Section Name
	OkanaganRv_Ro23
	Energy Slope
	0
	Right Mannings N
	0.15

Outflow



Subbasin : SalmonCk_Soro

Area : 147.61

Latitude : 48.55

Longitude : -119.81

Downstream : Salmon Ck

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.97
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	6.07
Storage Coefficient	6.07

Baseflow

Method

Linear Reservoir

Baseflow Layer List

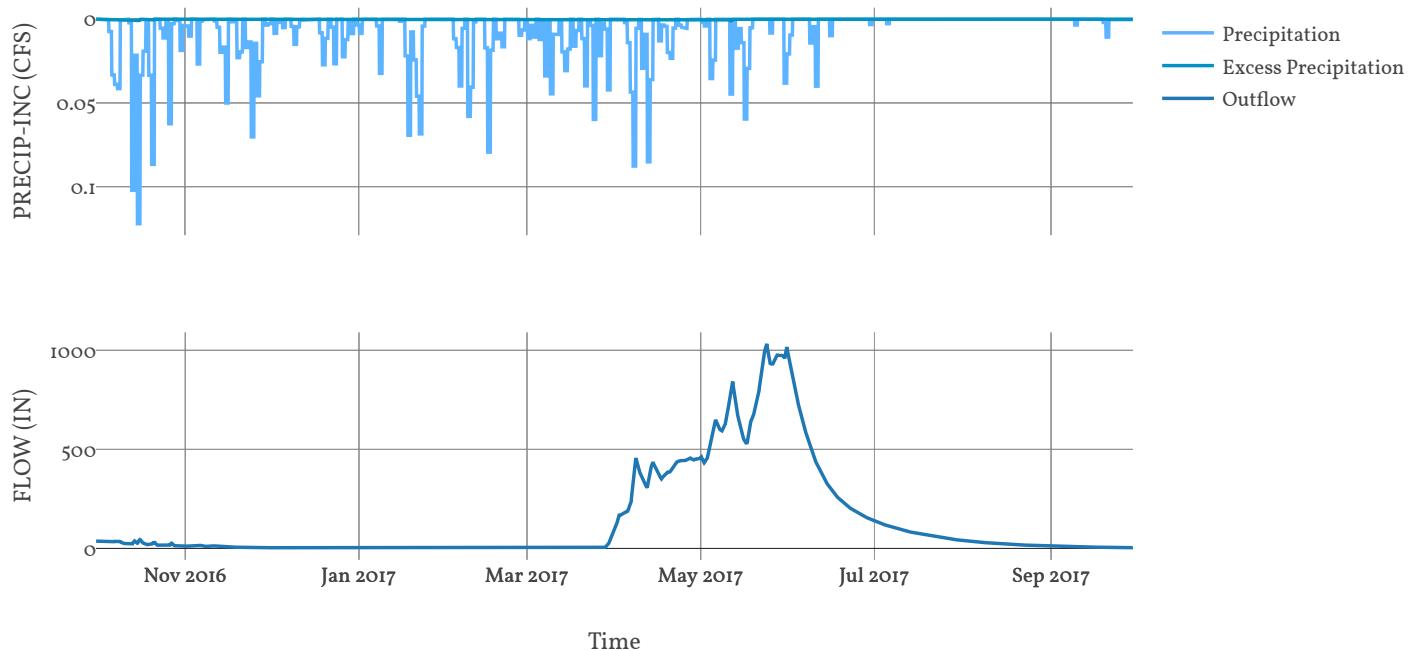
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	121.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.25
	Layer Number	2
	Storage Coefficient	607
	Number Steps	1

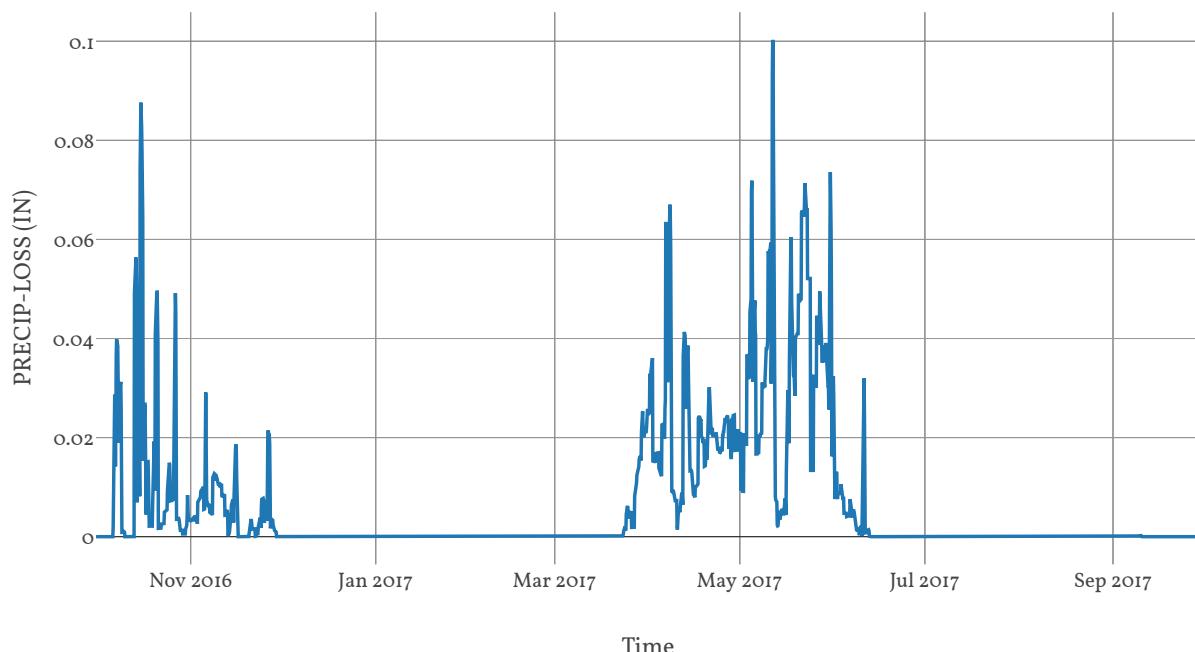
Statistics

Name	Value	Unit
Baseflow Volume	96680.65	Ac-ft
Precipitation Volume	191721.86	Ac-ft
Loss Volume	152781.86	Ac-ft
Excess Volume	1496.5	Ac-ft

Precipitation and Outflow



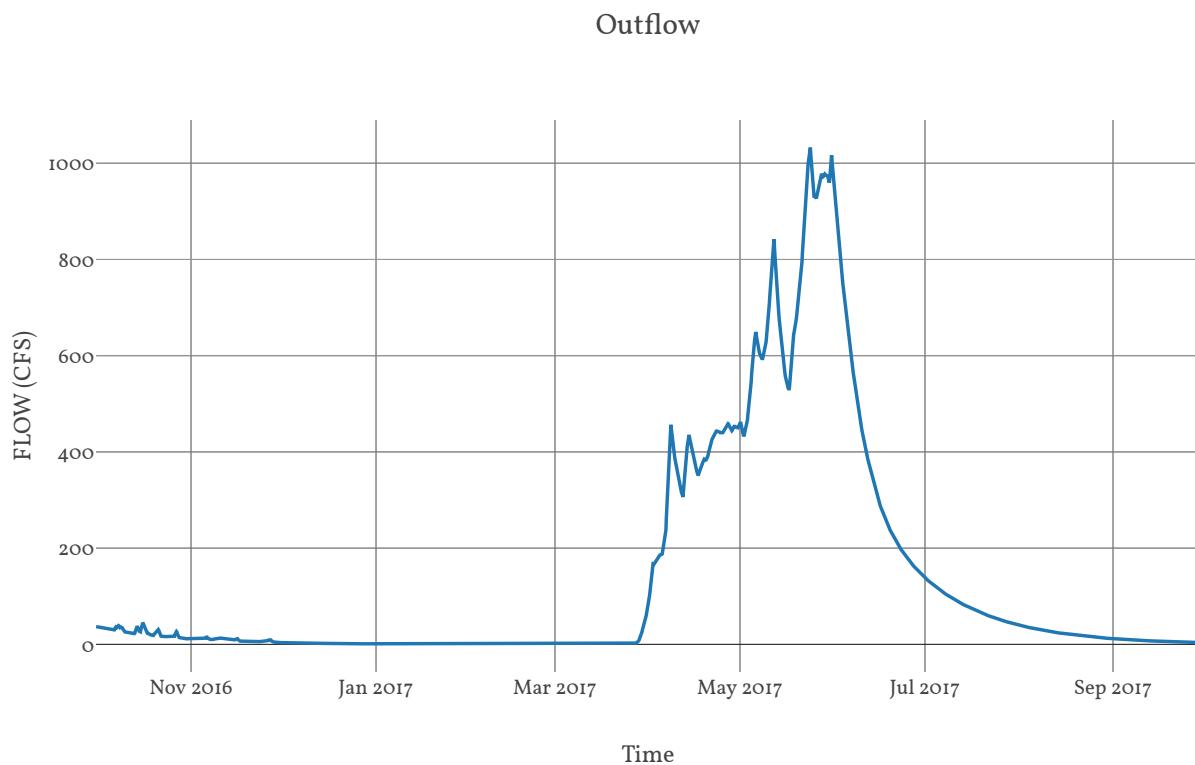
Precipitation Loss



Junction : SalmonCk

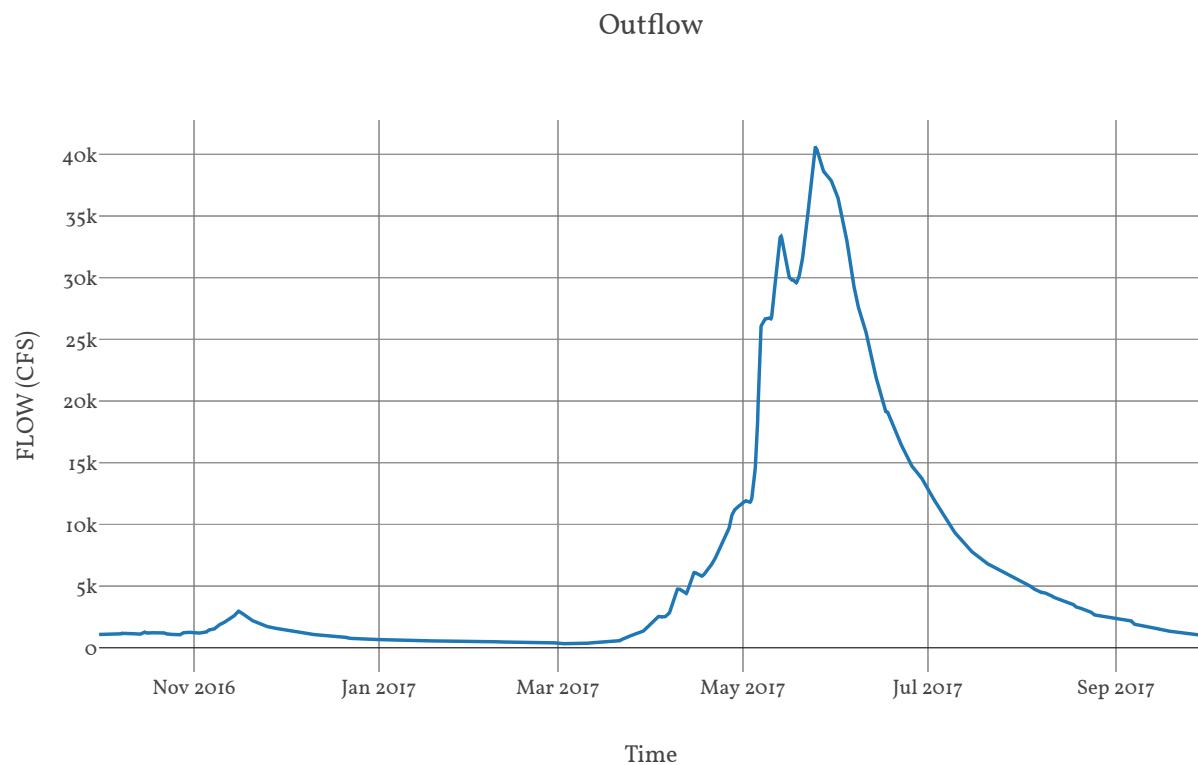
Observed Hydrograph : Salmon creek above diversion

Downstream : SalmonCk_CF



Junction : SalmonCk_CF

Downstream : OkanaganRv_R020



Reach : OkanaganRv_Ro20

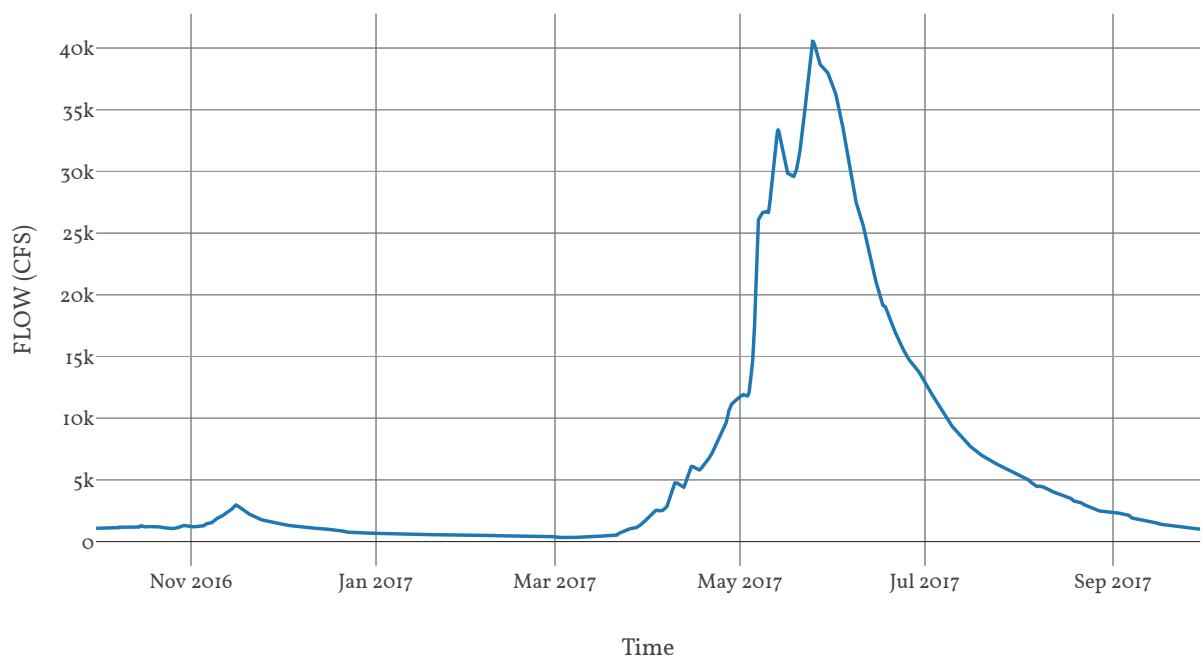
Loss Method : None

Downstream : Okanagan Nr Malott

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	1
	Length
	46473
	Max Depth Difference
	0
	Left Mannings N
	0.15
	Channel Type
	Eight Point
	Mannings N
	0.04
	Cross Section Name
	OkanaganRv_Ro20
	Energy Slope
	0
	Right Mannings N
	0.15

Outflow



Subbasin : OkanaganRv_So20

Area : 434.04

Latitude : 48.49

Longitude : -119.51

Downstream : Okanagan Nr Malott

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.7
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	11.72
Storage Coefficient	11.72

Baseflow

Method

Linear Reservoir

Baseflow Layer List

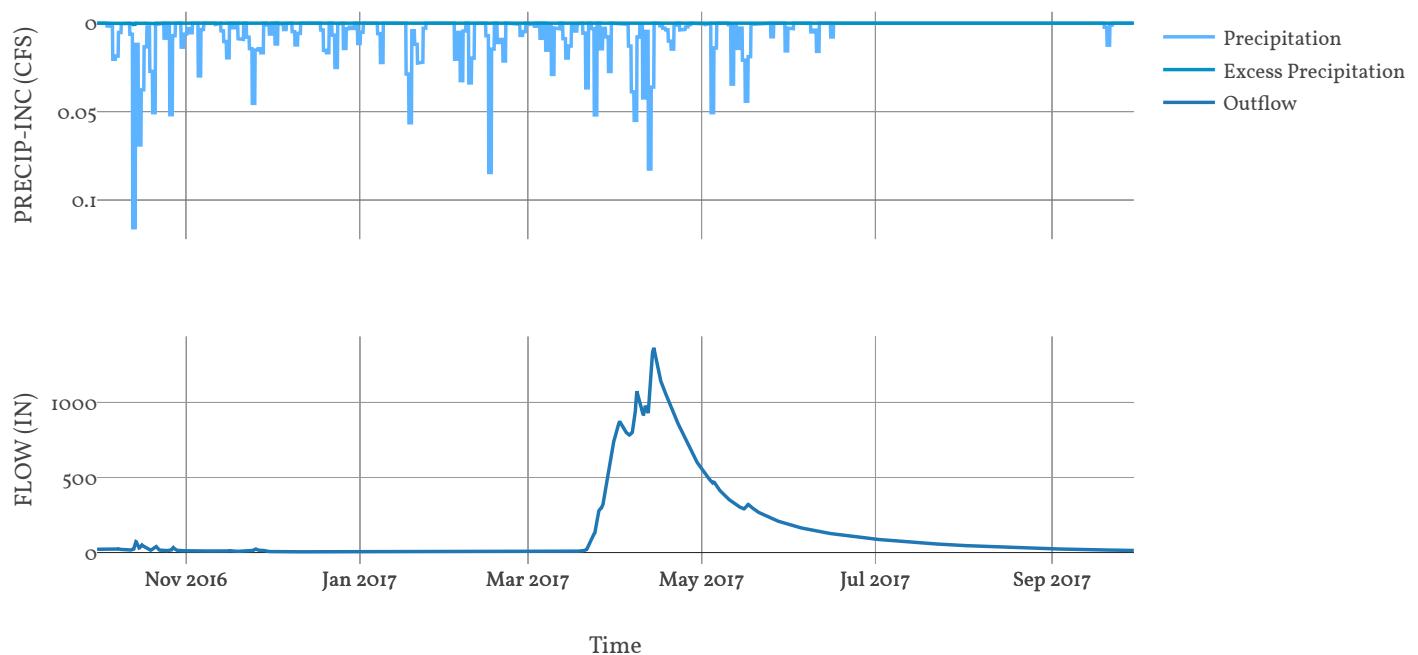
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	234.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	1172
	Number Steps	1

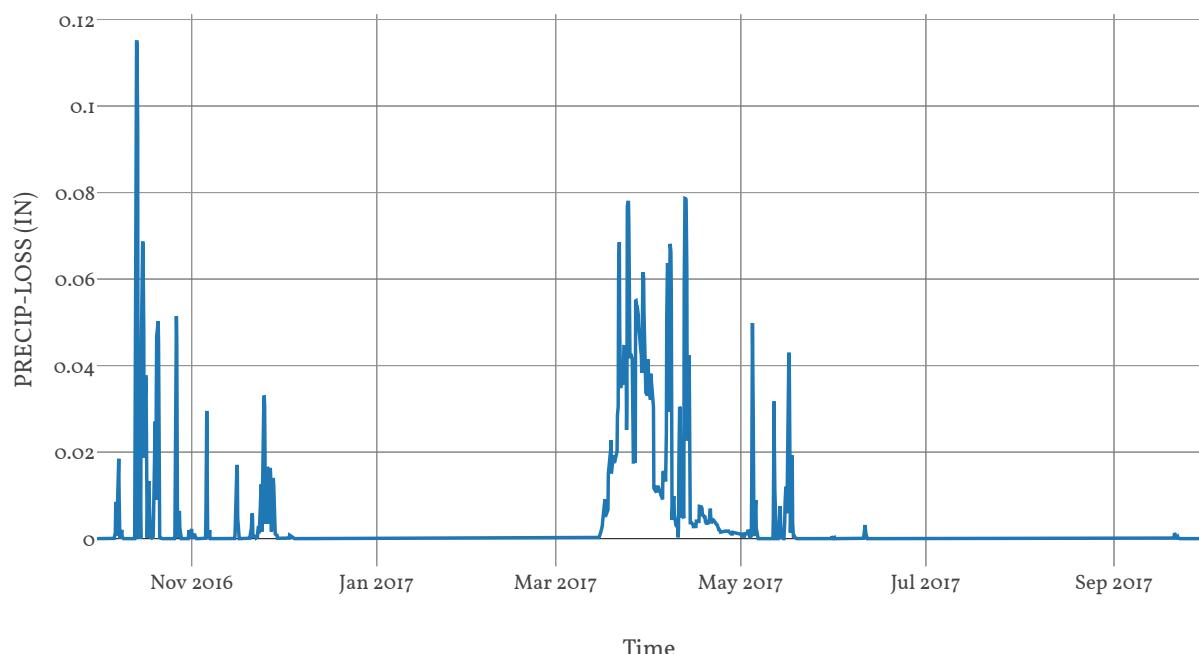
Statistics

Name	Value	Unit
Baseflow Volume	96591.78	Ac-ft
Precipitation Volume	399445.61	Ac-ft
Loss Volume	264909.57	Ac-ft
Excess Volume	1867.44	Ac-ft

Precipitation and Outflow



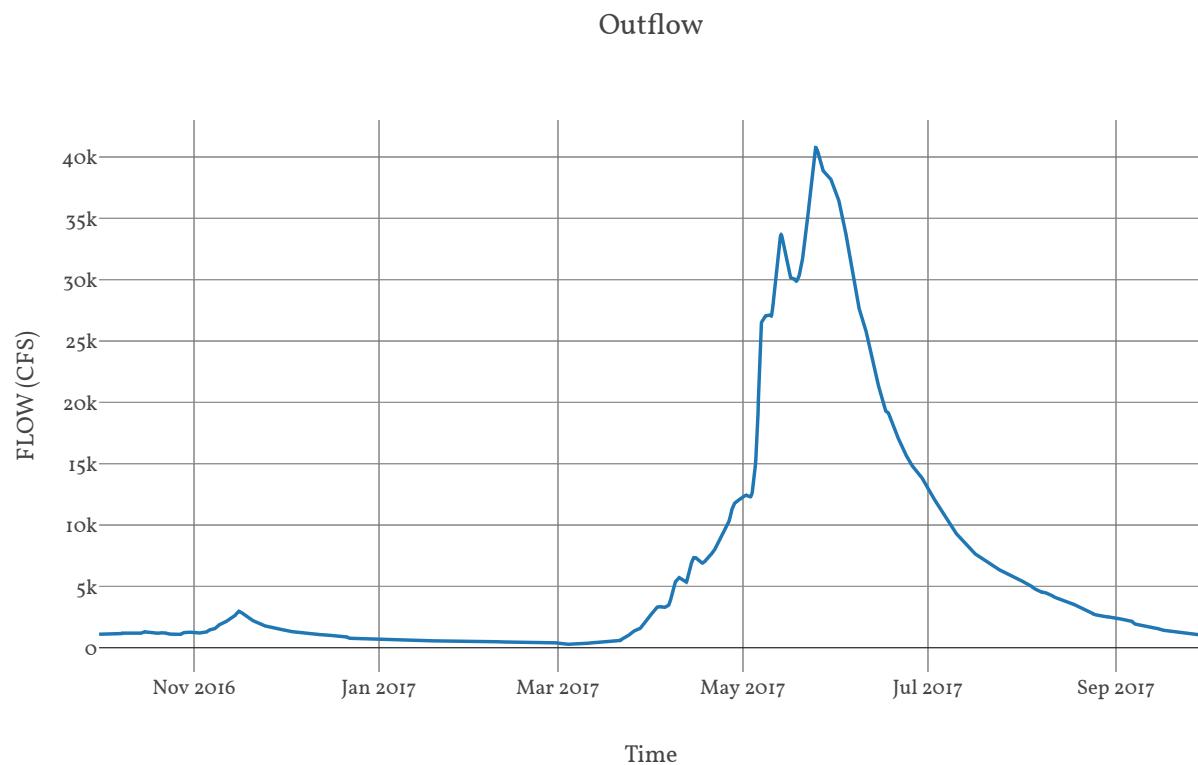
Precipitation Loss



Junction : OkanaganNrMalott

Observed Hydrograph : Okanogan river at malott

Downstream : OkanaganRv_RoIO



Reach : OkanaganRv_Ro10

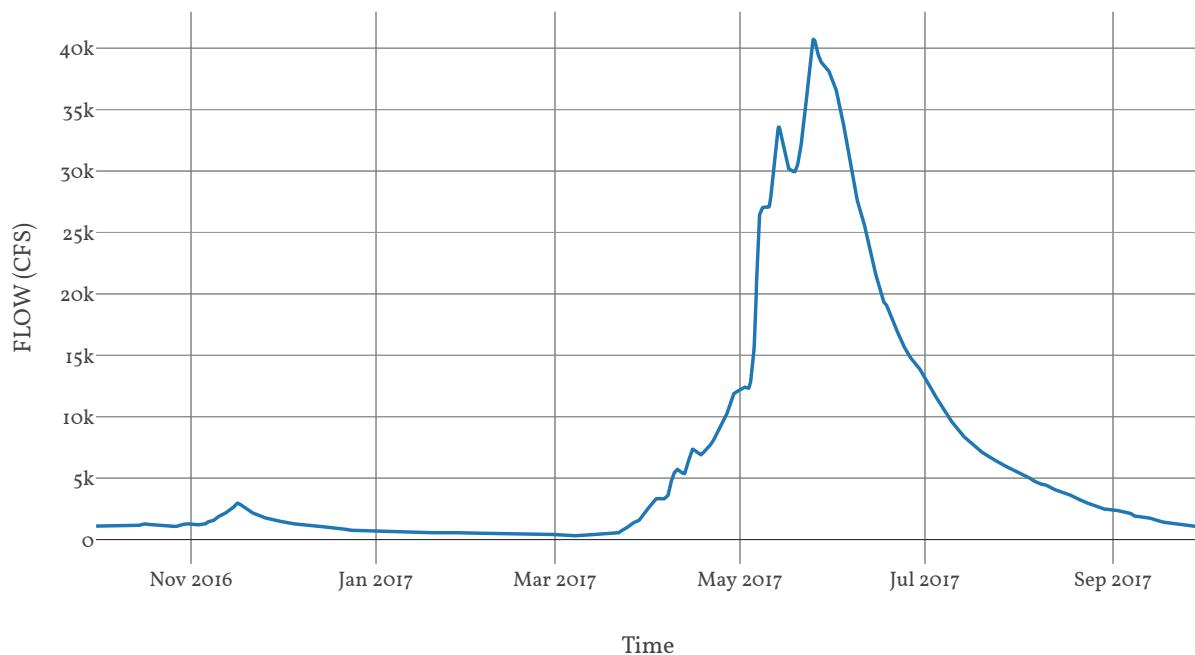
Loss Method : None

Downstream : OkanaganRv_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04 Nvalue Ratio 1 Length 90169 Max Depth Difference 0 Left Mannings N 0.15 Channel Type Eight Point Mannings N 0.04 Cross Section Name OkanaganRv_Ro10 Energy Slope 0 Right Mannings N 0.15

Outflow



Subbasin : OkanaganRv_SoIO

Area : 242.61

Latitude : 48.28

Longitude : -119.69

Downstream : OkanaganRv_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	1.28
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	8.39
Storage Coefficient	8.39

Baseflow

Method

Linear Reservoir

Baseflow Layer List

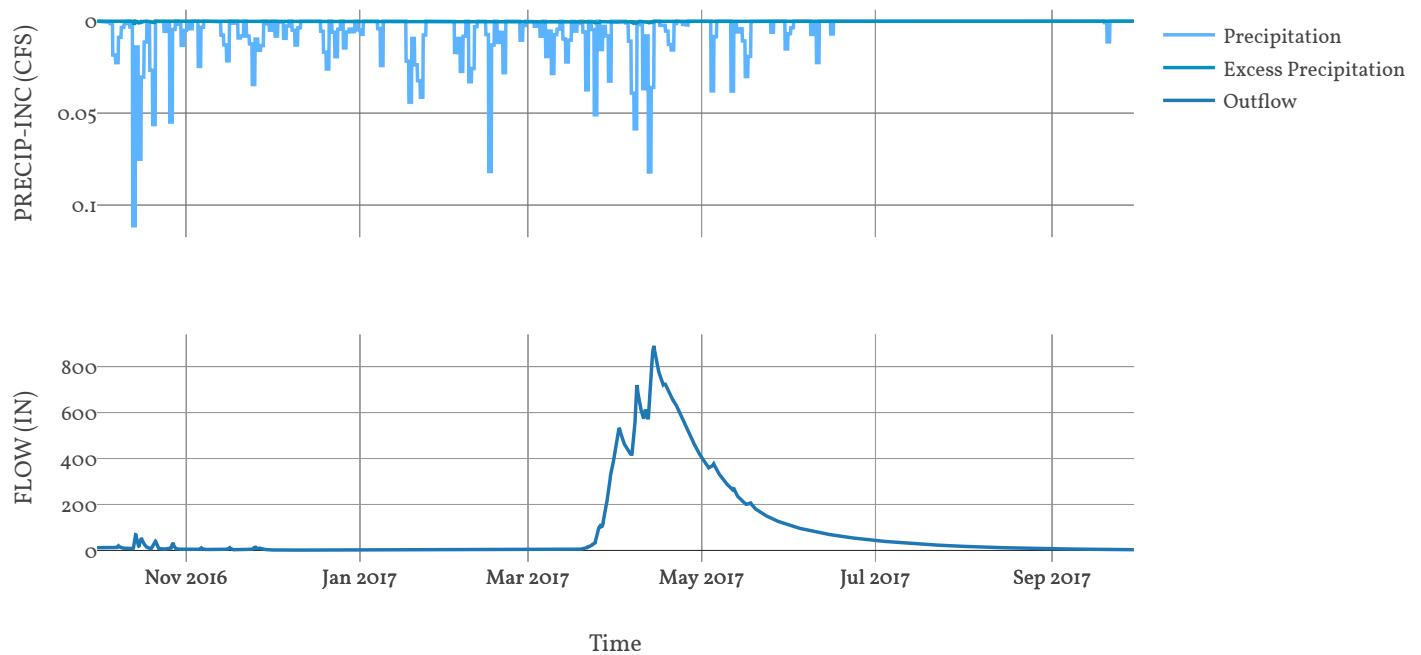
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	167.8
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.05
	Layer Number	2
	Storage Coefficient	839
	Number Steps	1

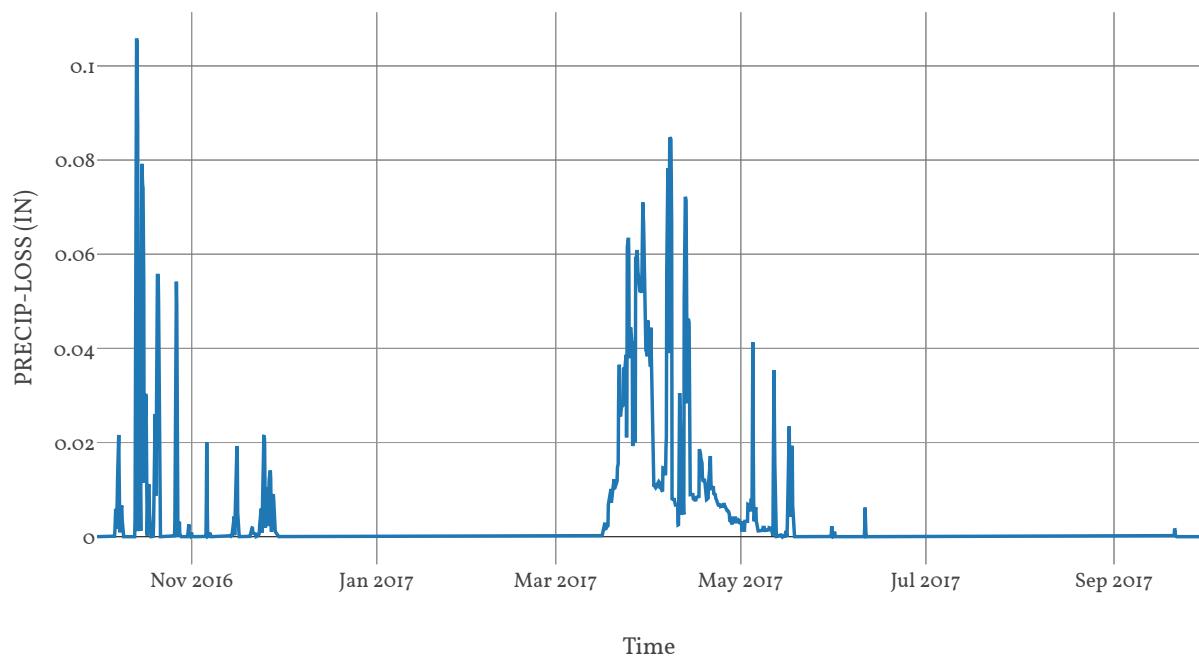
Statistics

Name	Value	Unit
Baseflow Volume	59078.02	Ac-ft
Precipitation Volume	223562.26	Ac-ft
Loss Volume	149787.9	Ac-ft
Excess Volume	1942.14	Ac-ft

Precipitation and Outflow

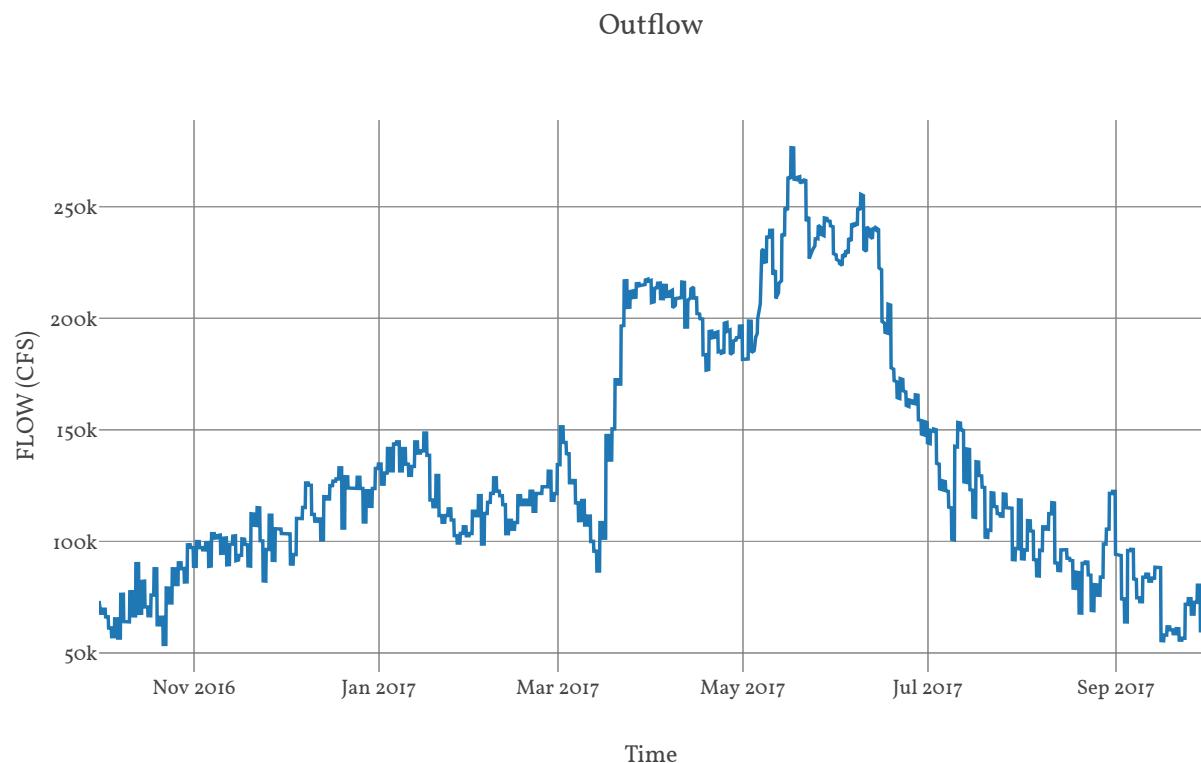


Precipitation Loss



Junction : OkanoganRv_CF

Downstream : MidColumbia_R073



Reach : MidColumbia_R073

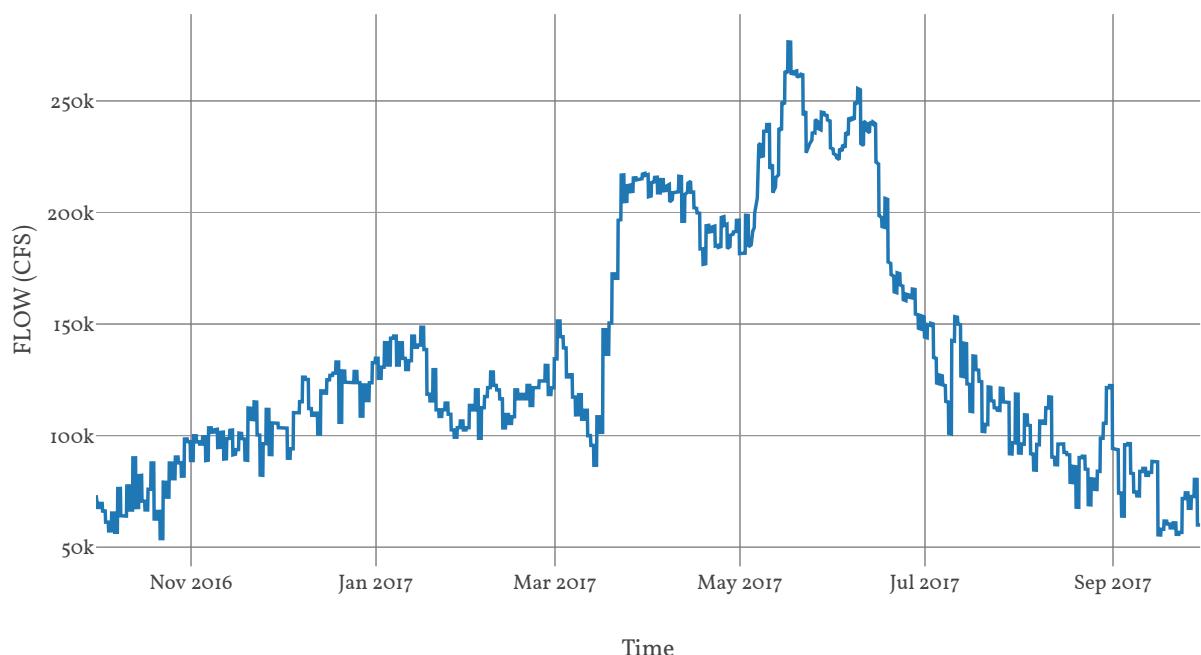
Loss Method : None

Downstream : MethowRv_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : MethowRv_So30

Area : 366.76

Latitude : 48.7

Longitude : -120.52

Downstream : Methow Ab Goat Ck

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.18
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	753
Storage Coefficient	753

Baseflow

Method

Linear Reservoir

Baseflow Layer List

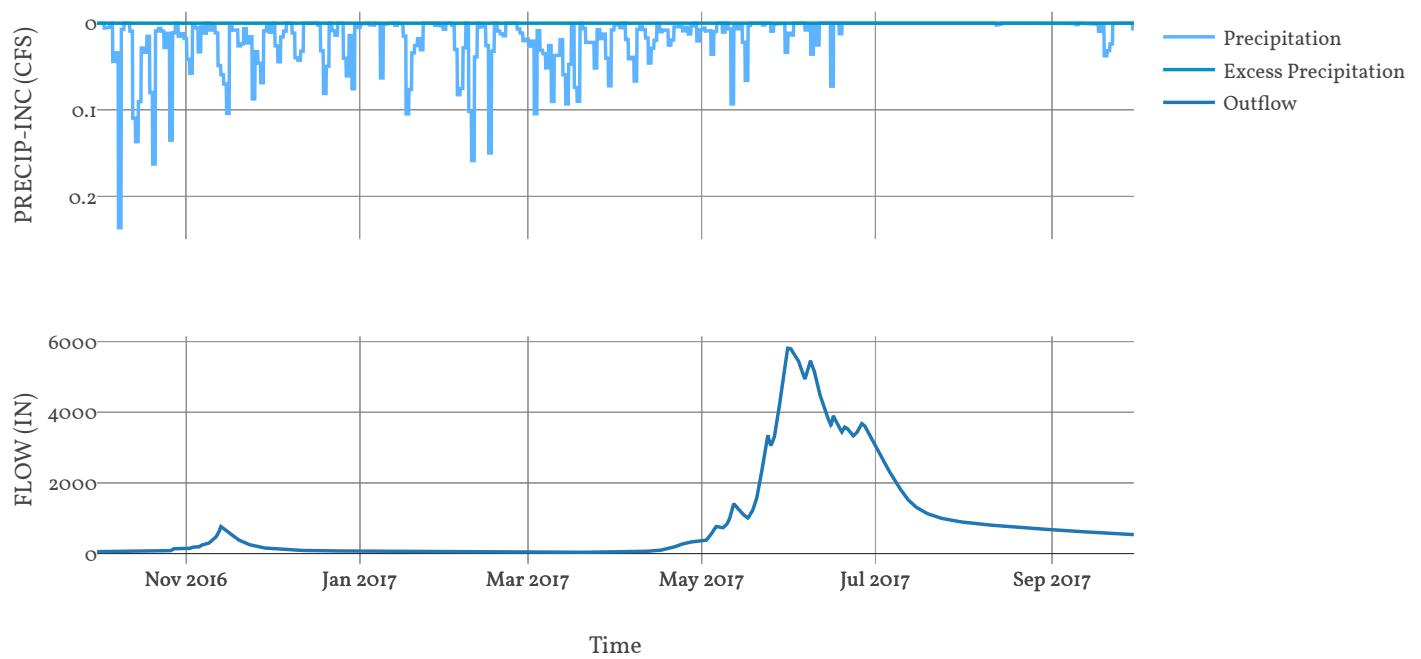
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	150.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.15
	Layer Number	2
	Storage Coefficient	3012
	Number Steps	1

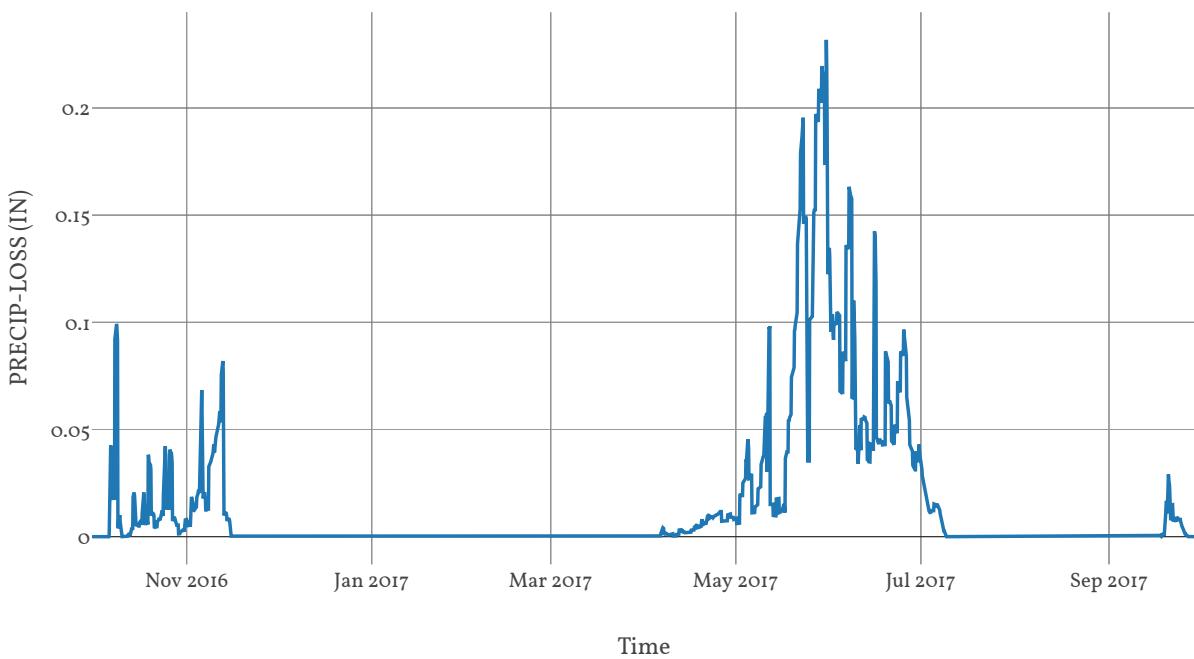
Statistics

Name	Value	Unit
Baseflow Volume	589122.06	Ac-ft
Precipitation Volume	958701.81	Ac-ft
Loss Volume	869526.3	Ac-ft
Excess Volume	1567.97	Ac-ft

Precipitation and Outflow



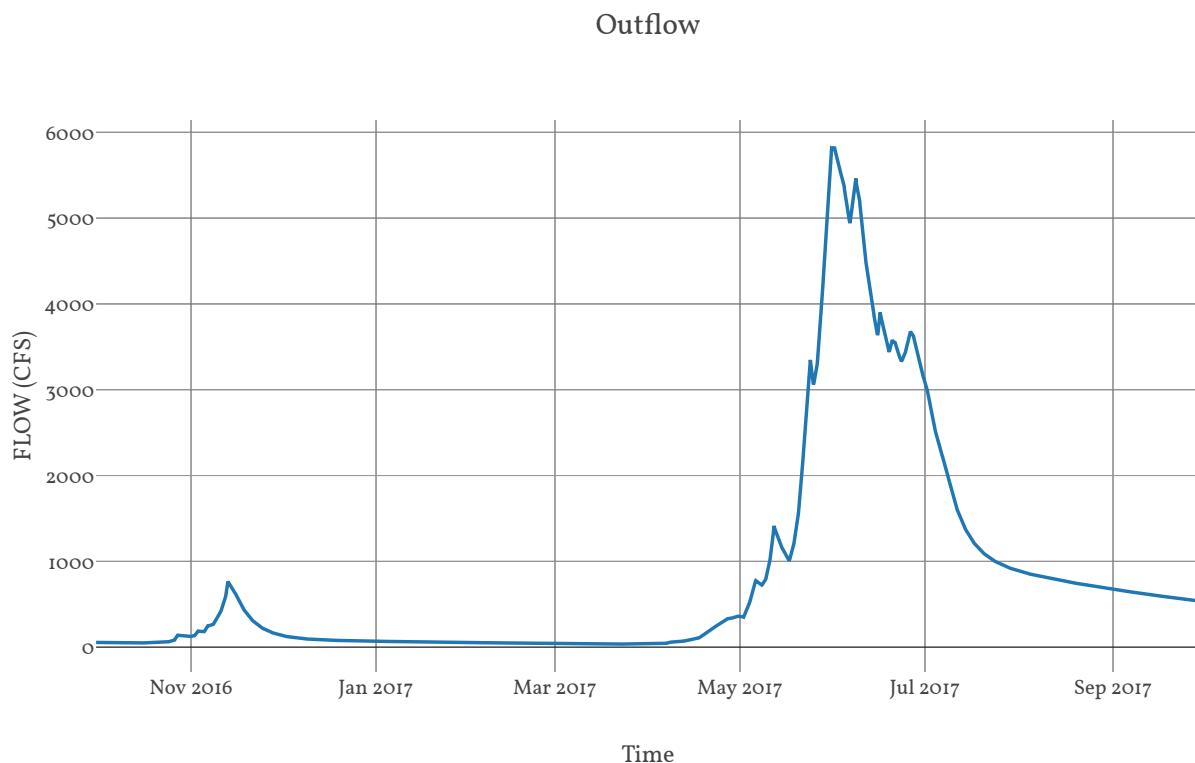
Precipitation Loss



Junction : MethowAbGoatCk

Observed Hydrograph : Methow river above goat cree

Downstream : MethowRv_Ro25



Reach : MethowRv_Ro25

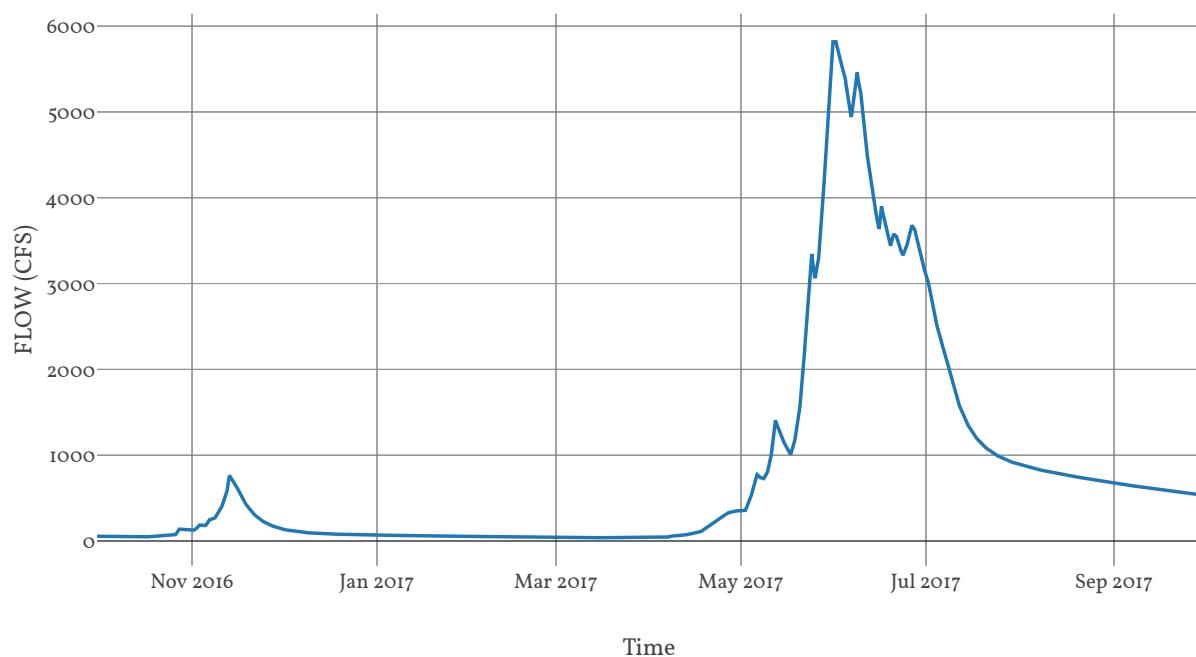
Loss Method : None

Downstream : ChewuchRv_CF

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	1
	Length
	77193
	Max Depth Difference
	0
	Left Mannings N
	0.15
	Channel Type
	Eight Point
	Mannings N
	0.04
	Cross Section Name
	MethowRv_Ro25
	Energy Slope
	0
	Right Mannings N
	0.15

Outflow



Subbasin : ChewuchRv_So10

Area : 525.02

Observed Hydrograph : Chewuch river at winthrop

Latitude : 48.74

Longitude : -120.12

Downstream : ChewuchRv_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.38
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	9.39
Storage Coefficient	9.39

Baseflow

Method

Linear Reservoir

Baseflow Layer List

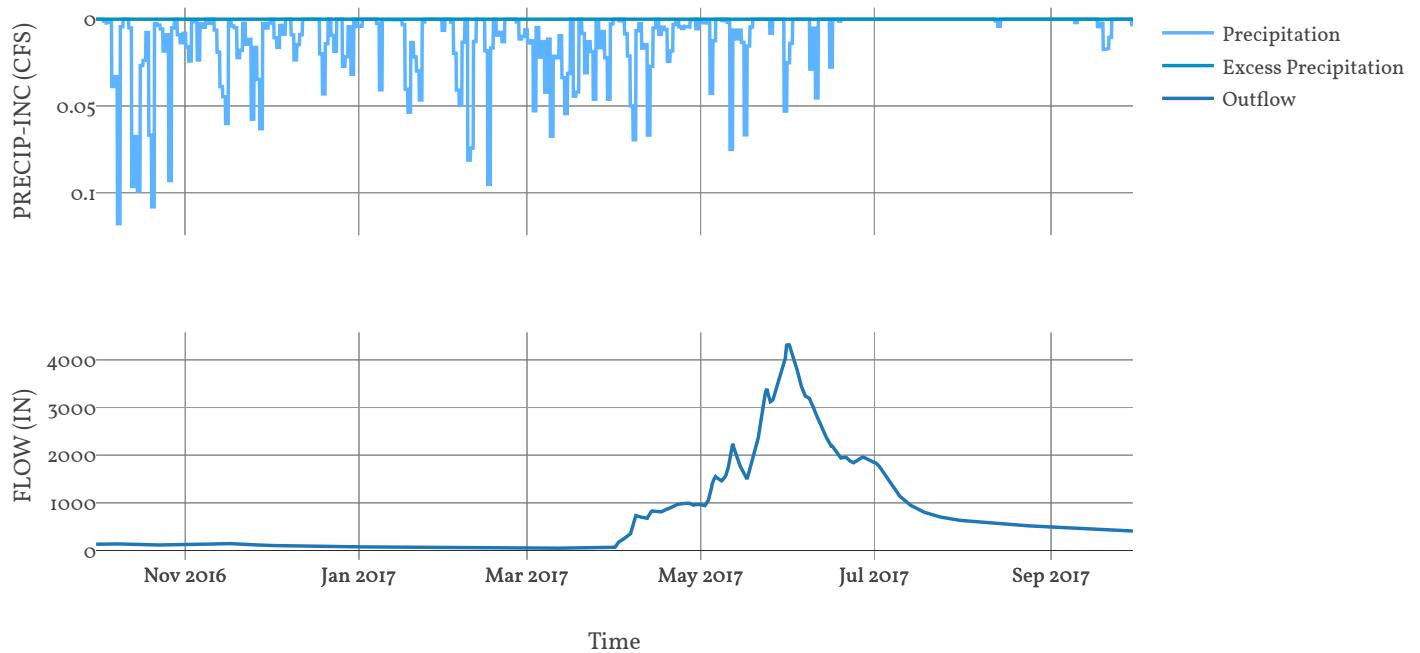
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	187.8
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.25
	Layer Number	2
	Storage Coefficient	3756
	Number Steps	1

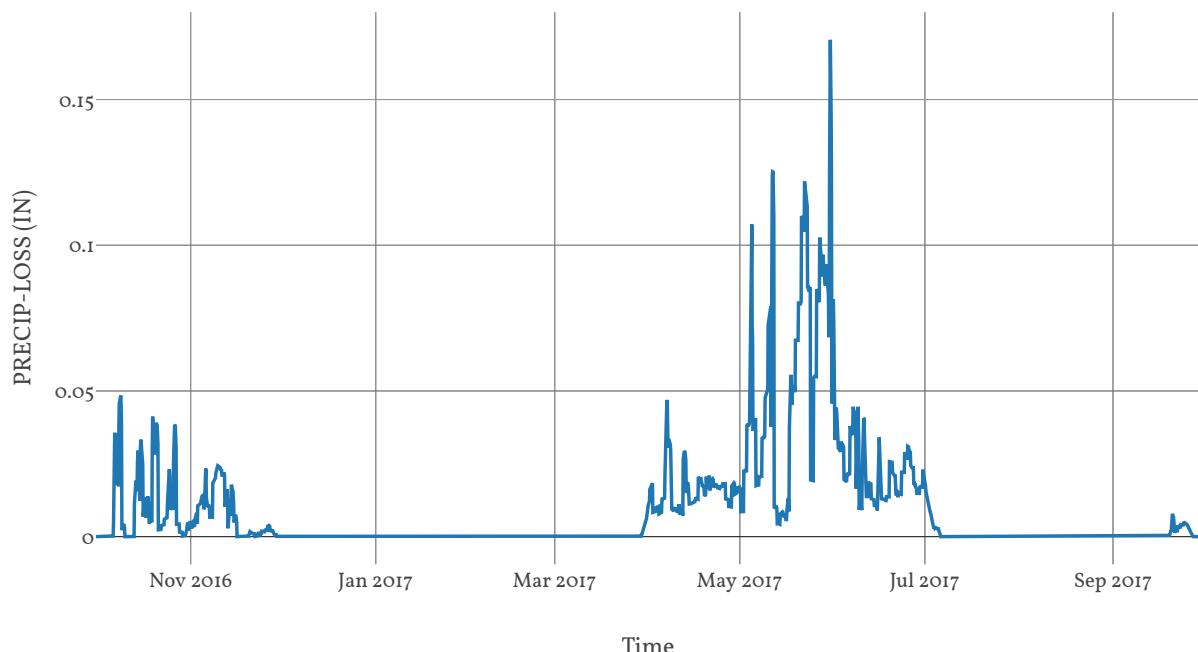
Statistics

Name	Value	Unit
Baseflow Volume	480418.89	Ac-ft
Precipitation Volume	903167.83	Ac-ft
Loss Volume	780429.44	Ac-ft
Excess Volume	2976.94	Ac-ft

Precipitation and Outflow



Precipitation Loss



Subbasin : MethowRv_So20

Area : 183.84

Latitude : 48.52

Longitude : -120.29

Downstream : ChewuchRv_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.46
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	7.98
Storage Coefficient	7.98

Baseflow

Method

Linear Reservoir

Baseflow Layer List

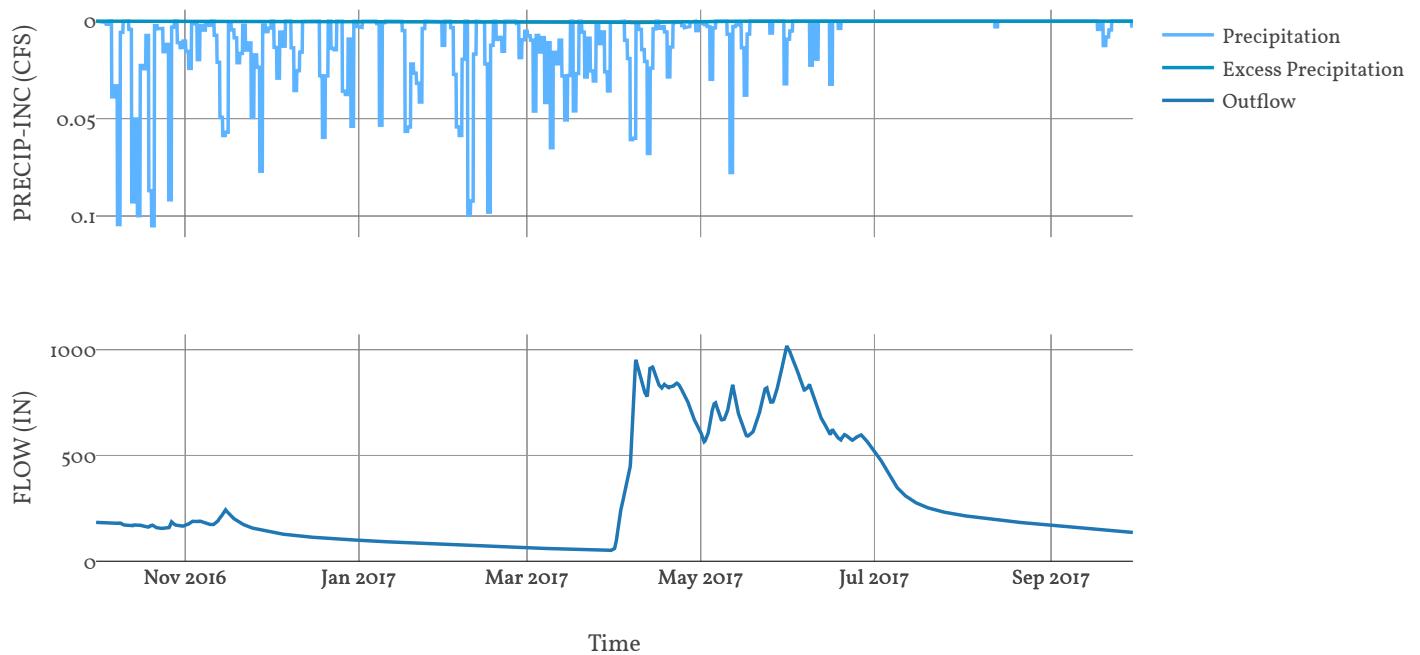
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	159.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	1
	Layer Number	2
	Storage Coefficient	3192
	Number Steps	1

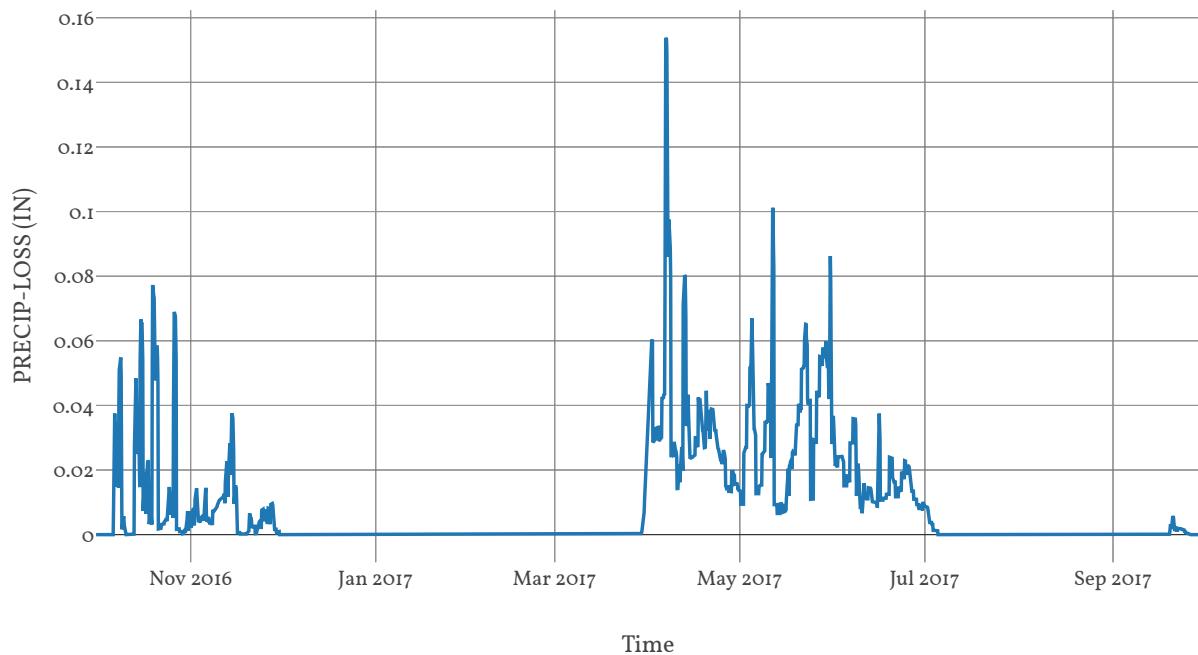
Statistics

Name	Value	Unit
Baseflow Volume	206623.68	Ac-ft
Precipitation Volume	315162.19	Ac-ft
Loss Volume	265486.69	Ac-ft
Excess Volume	1226.88	Ac-ft

Precipitation and Outflow



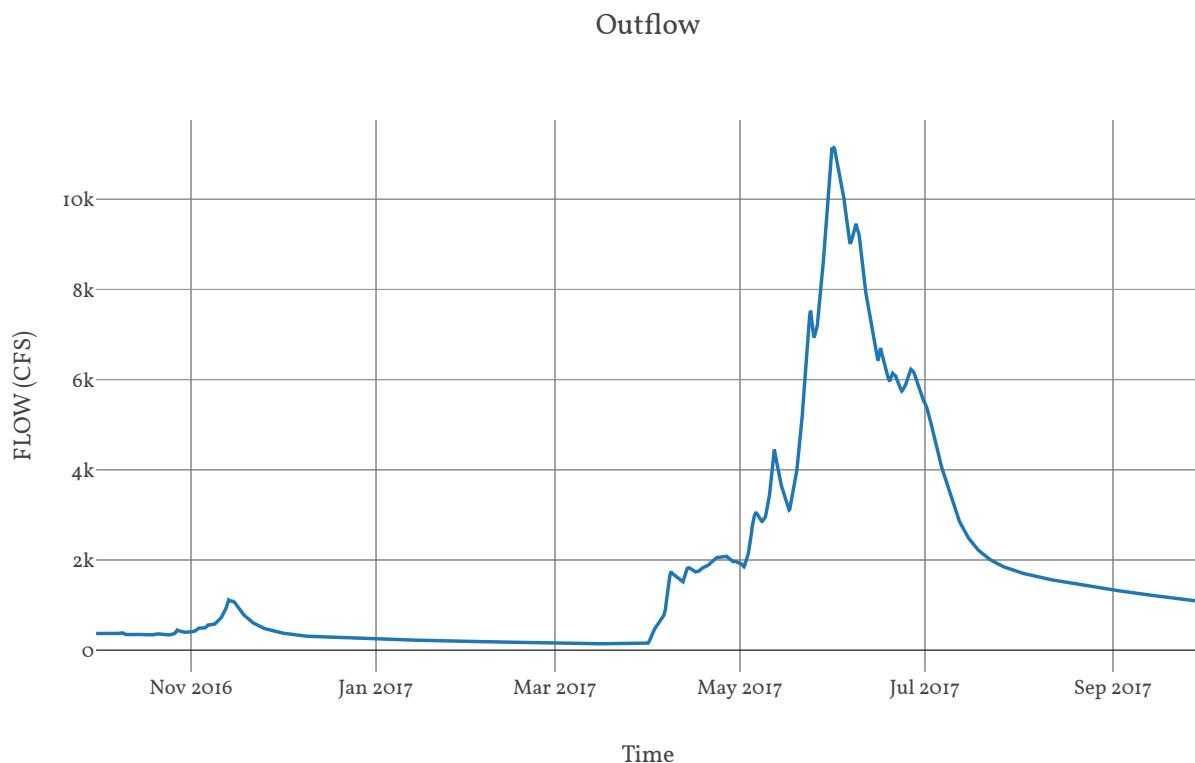
Precipitation Loss



Junction : ChewuchRv_CF

Observed Hydrograph : Methow river at winthrop

Downstream : MethowRv_Ro20



Reach : MethowRv_Ro20

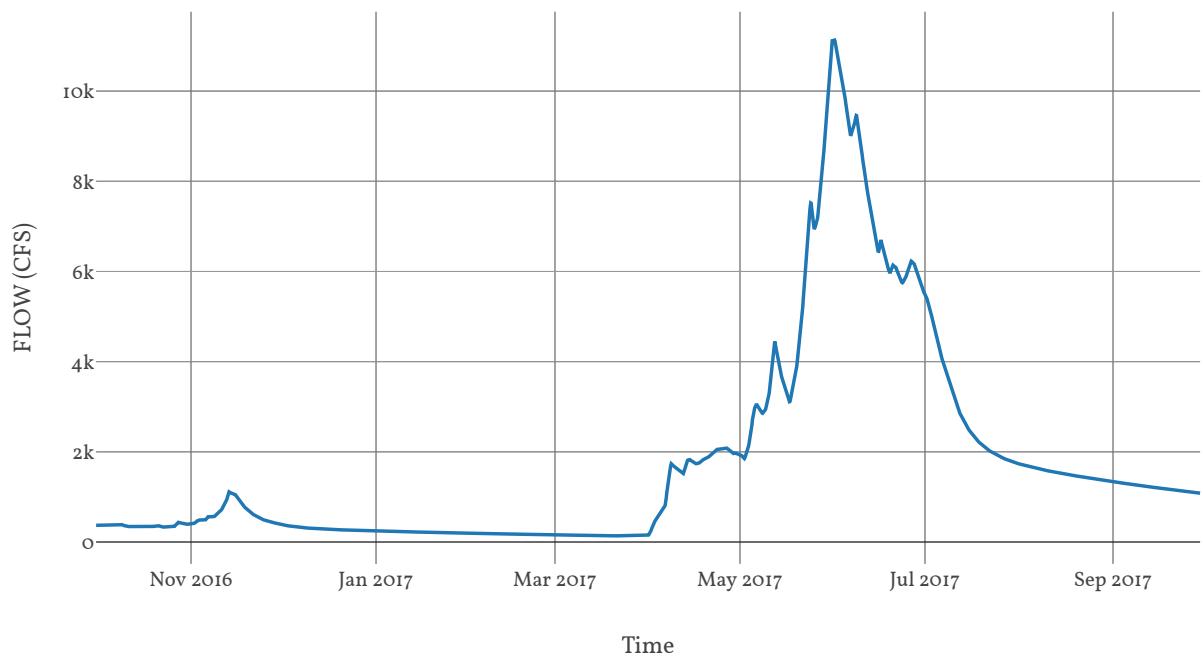
Loss Method : None

Downstream : Methow Nr Twisp

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	1
	Length
	55087
	Max Depth Difference
	0
	Left Mannings N
	0.15
	Channel Type
	Eight Point
	Mannings N
	0.04
	Cross Section Name
	MethowRv_Ro20
	Energy Slope
	0
	Right Mannings N
	0.15

Outflow



Subbasin : TwispRv_Soio

Area : 244.81

Latitude : 48.37

Longitude : -120.41

Downstream : Twisp Rv

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.16
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	7.45
Storage Coefficient	7.45

Baseflow

Method

Linear Reservoir

Baseflow Layer List

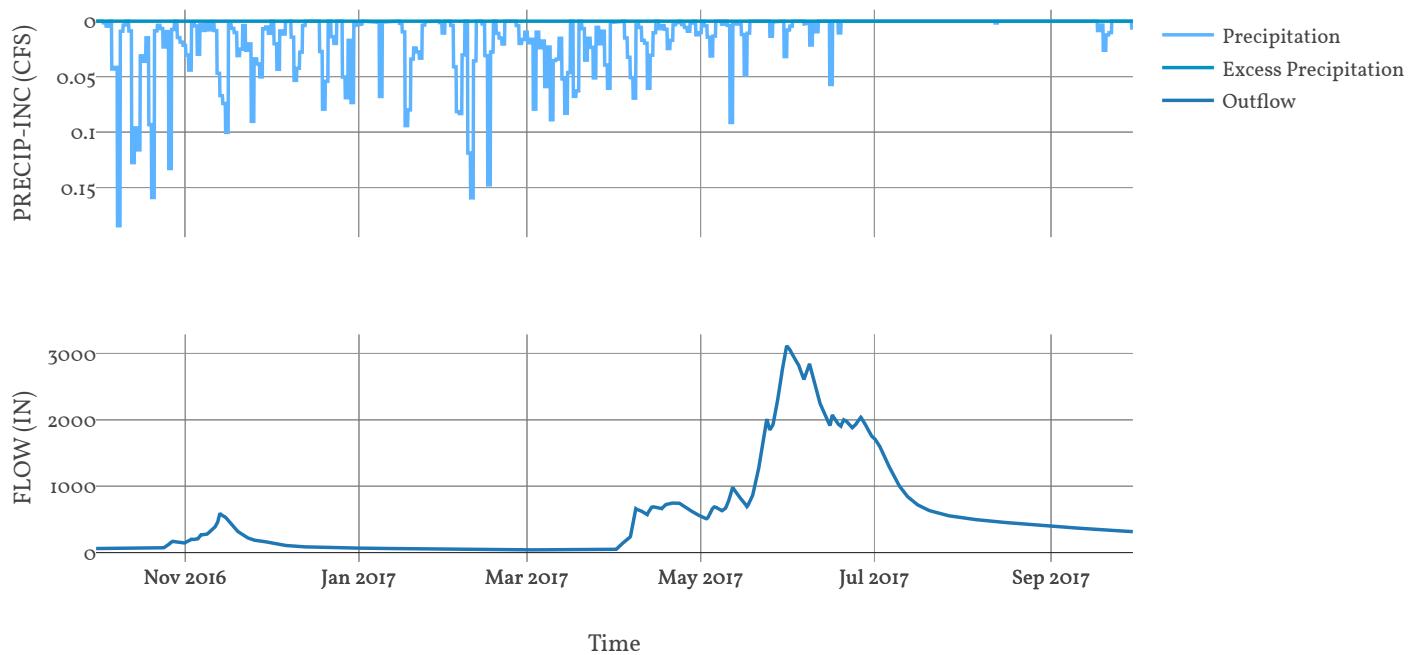
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	149
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.25
	Layer Number	2
	Storage Coefficient	2980
	Number Steps	1

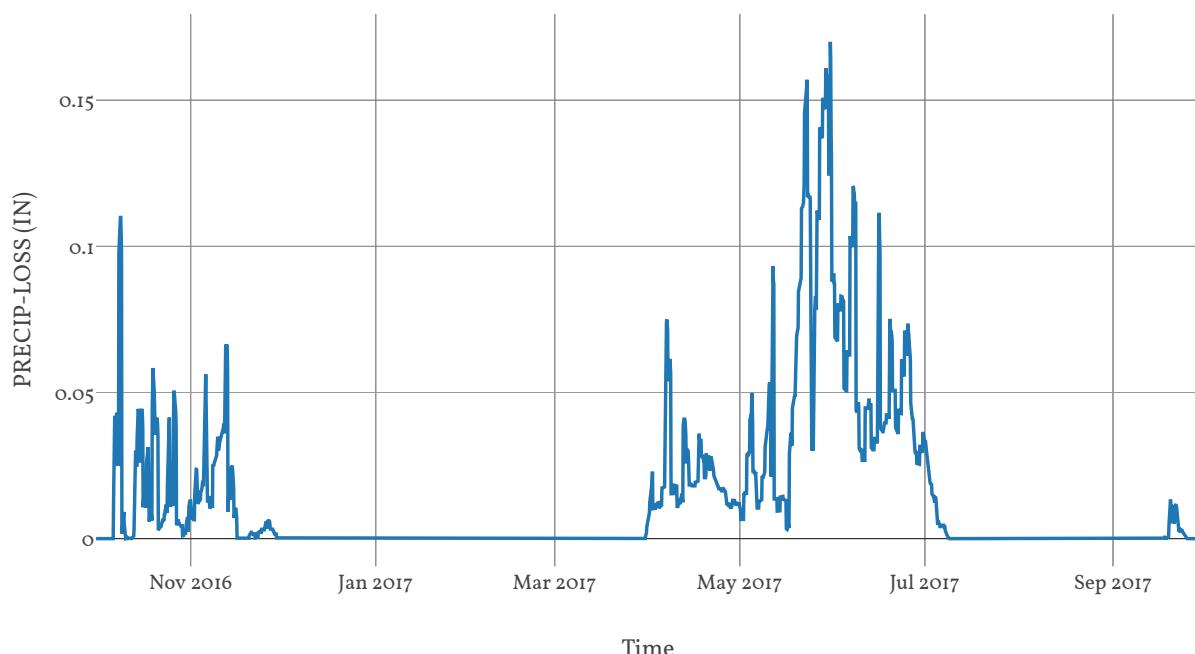
Statistics

Name	Value	Unit
Baseflow Volume	379612.55	Ac-ft
Precipitation Volume	605342.33	Ac-ft
Loss Volume	543788.6	Ac-ft
Excess Volume	871.46	Ac-ft

Precipitation and Outflow



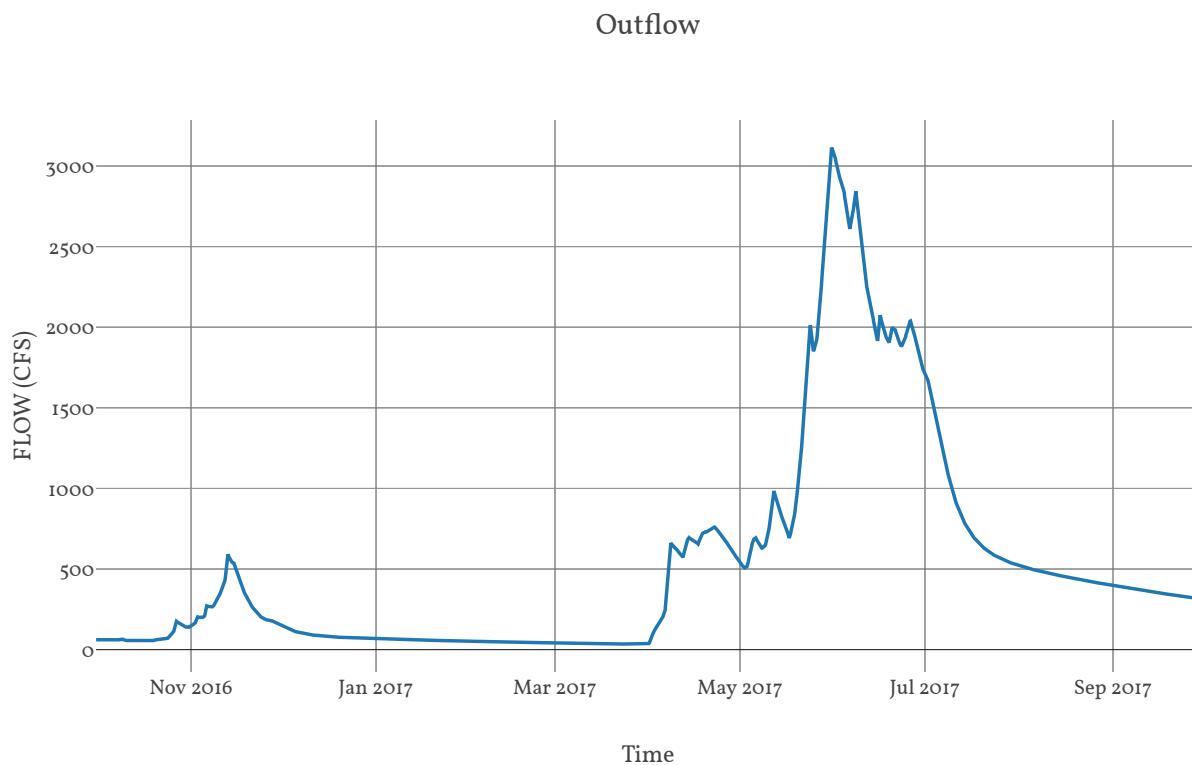
Precipitation Loss



Junction : TwispRv

Observed Hydrograph : Twisp river near twisp

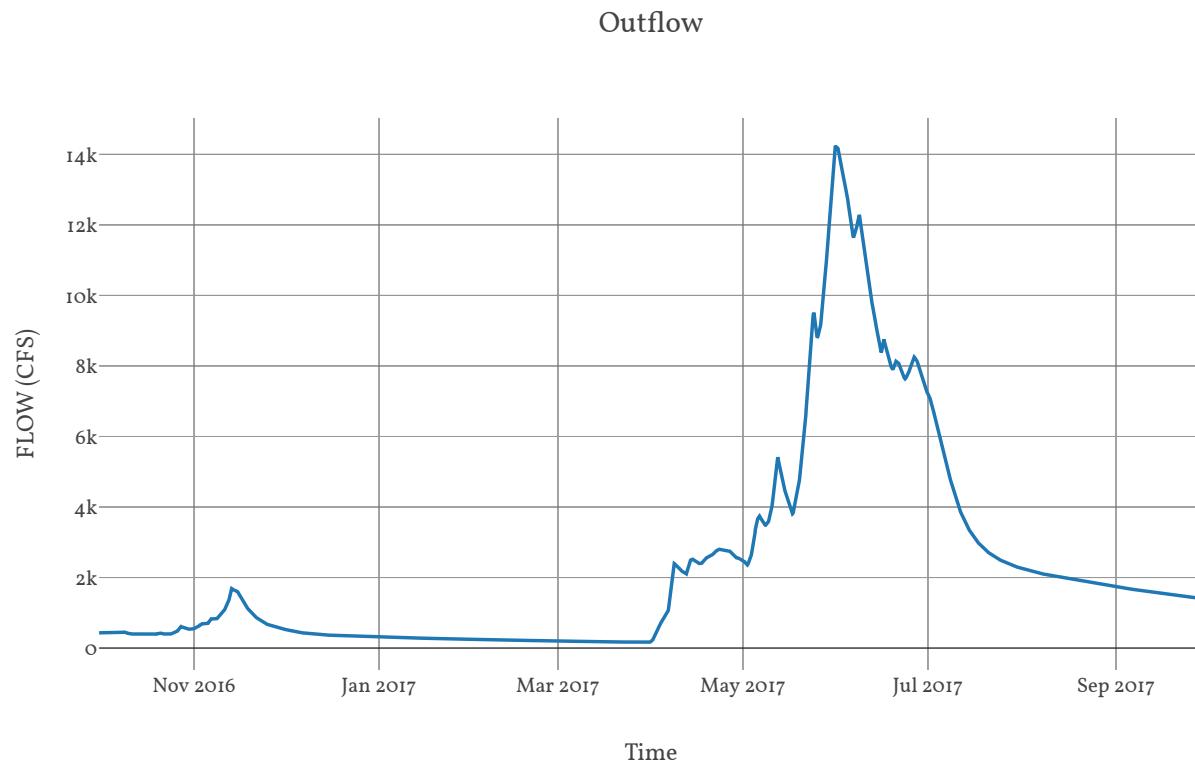
Downstream : Methow Nr Twisp



Junction : MethowNrTwisp

Observed Hydrograph : Methow river at twisp

Downstream : MethowRv_R010



Reach : MethowRv_RoIO

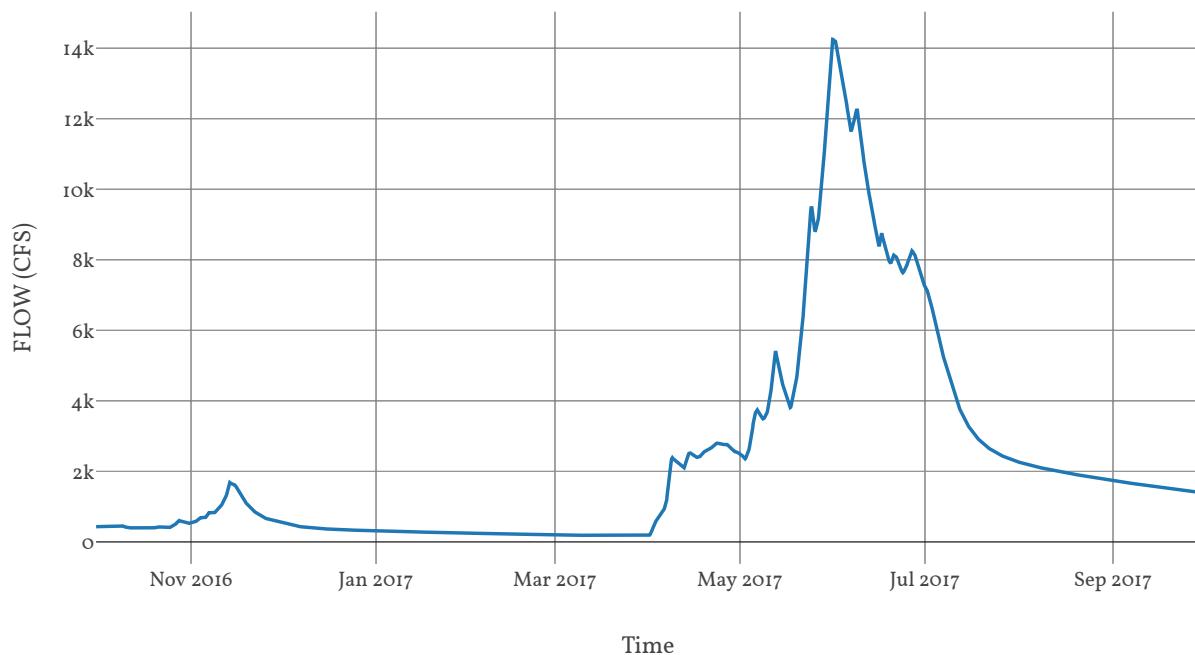
Loss Method : None

Downstream : Methow Nr Pateros

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N
	0.04
	Nvalue Ratio
	1
	Length
	183919
	Max Depth Difference
	0
	Left Mannings N
	0.15

Outflow



Subbasin : MethowRv_SoIO

Area : 471.72

Latitude : 48.26

Longitude : -120.08

Downstream : Methow Nr Pateros

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.14
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	9.88
Storage Coefficient	9.88

Baseflow

Method

Linear Reservoir

Baseflow Layer List

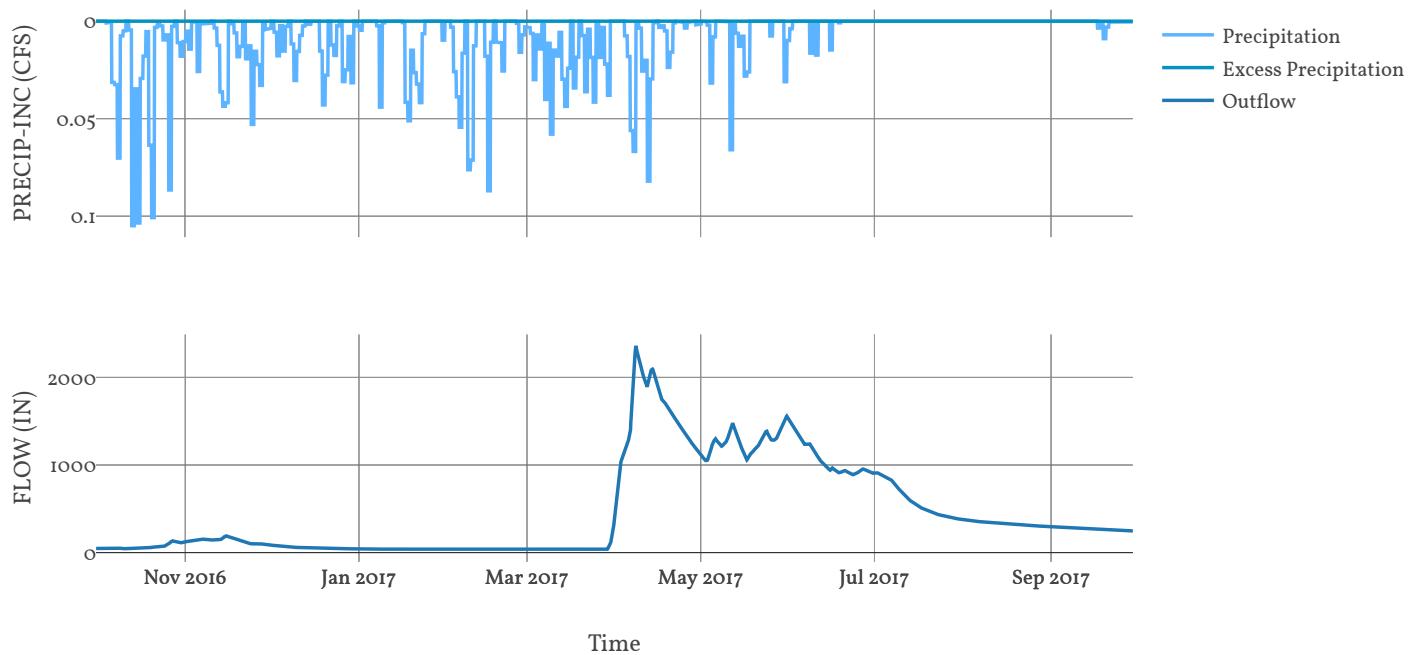
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	197.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	3952
	Number Steps	1

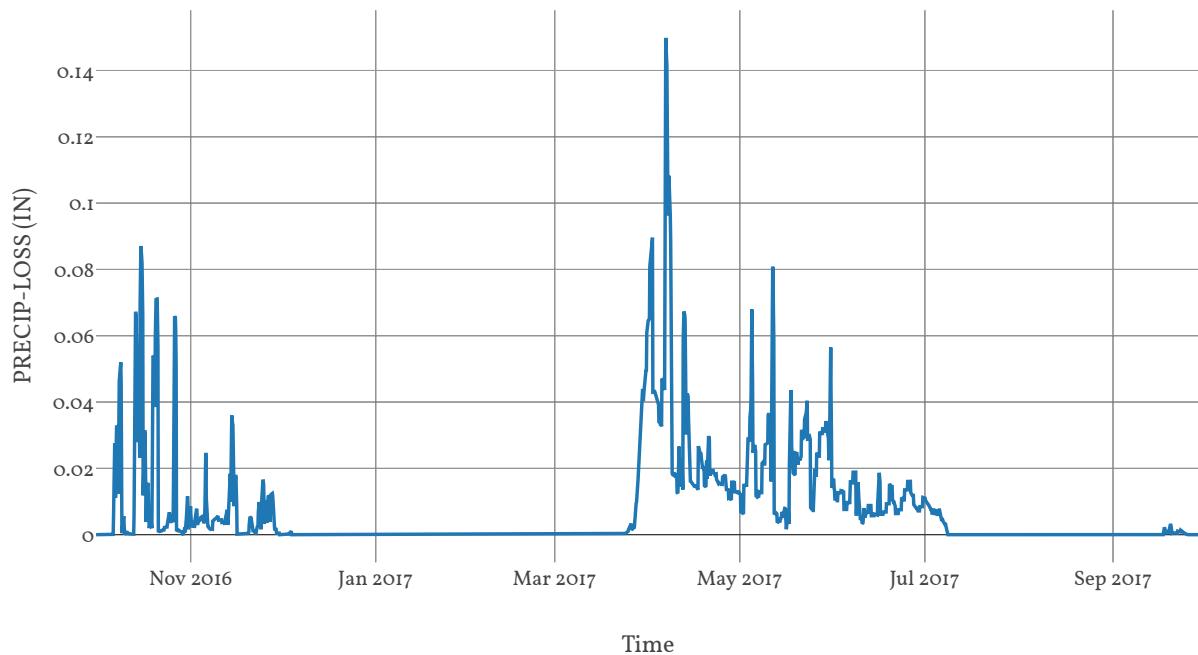
Statistics

Name	Value	Unit
Baseflow Volume	327617.19	Ac-ft
Precipitation Volume	701256.3	Ac-ft
Loss Volume	574385.14	Ac-ft
Excess Volume	805.27	Ac-ft

Precipitation and Outflow



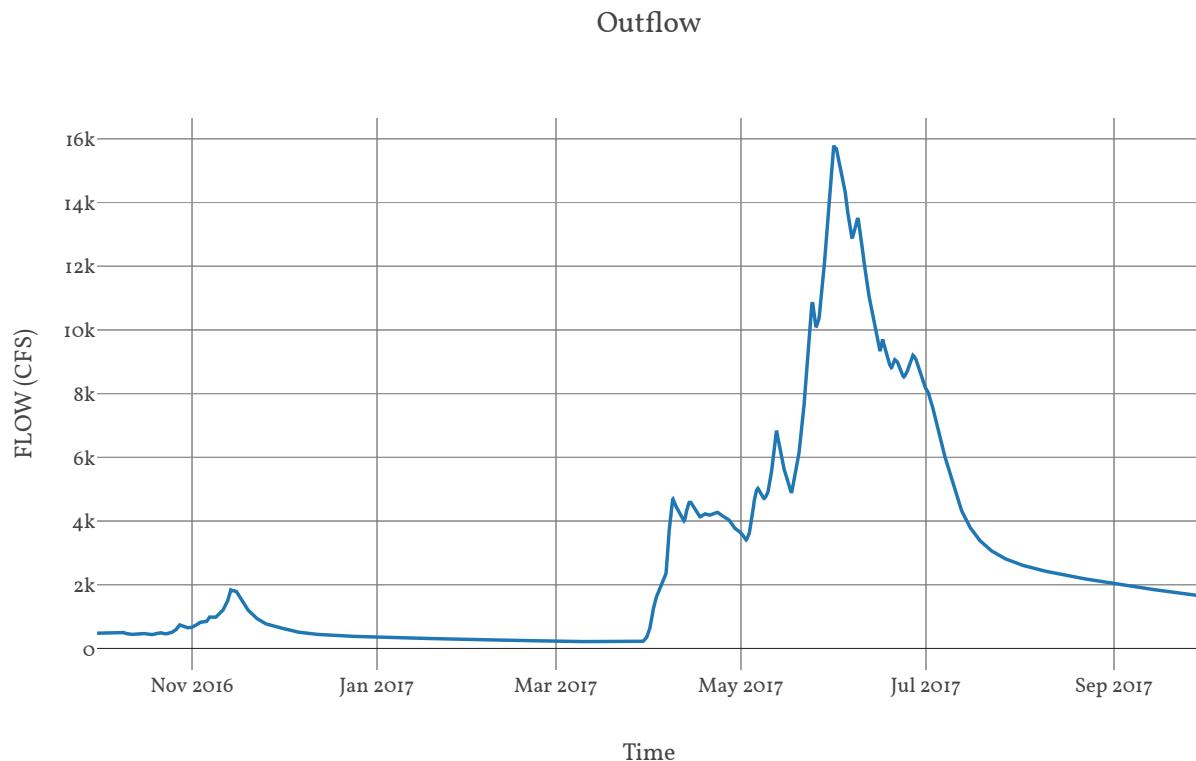
Precipitation Loss



Junction : MethowNrPateros

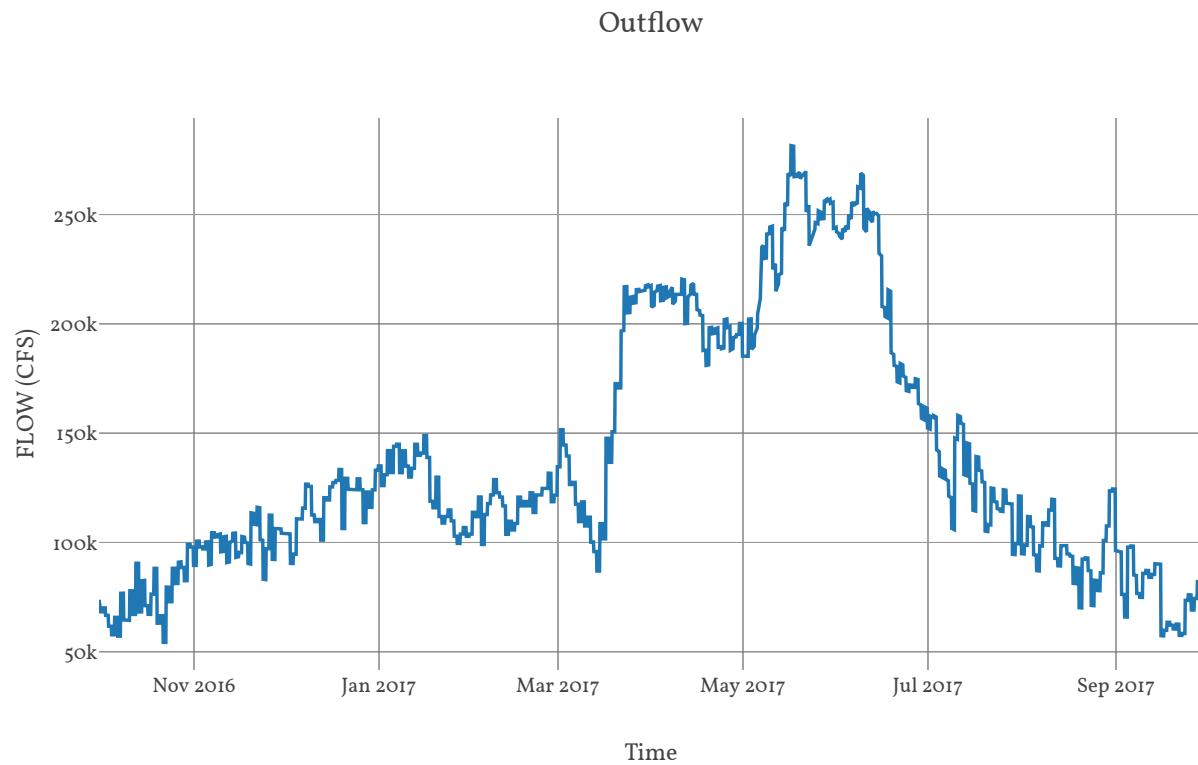
Observed Hydrograph : Methow river near pateros

Downstream : MethowRv_CF



Junction : MethowRv_CF

Downstream : MidColumbia_R070



Reach : MidColumbia_Ro70

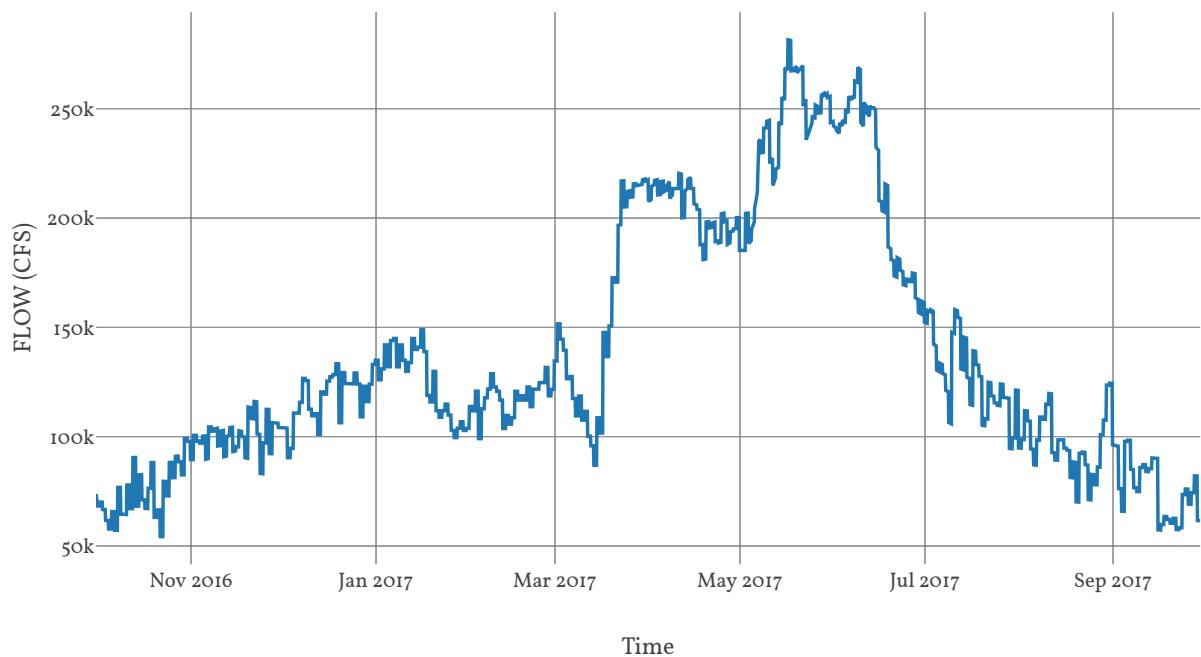
Loss Method : None

Downstream : Wells_IN

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : MidColumbia_So70

Area : 268.47

Latitude : 48.1

Longitude : -119.81

Downstream : Wells_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.64
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	7.25
Storage Coefficient	7.25

Baseflow

Method

Linear Reservoir

Baseflow Layer List

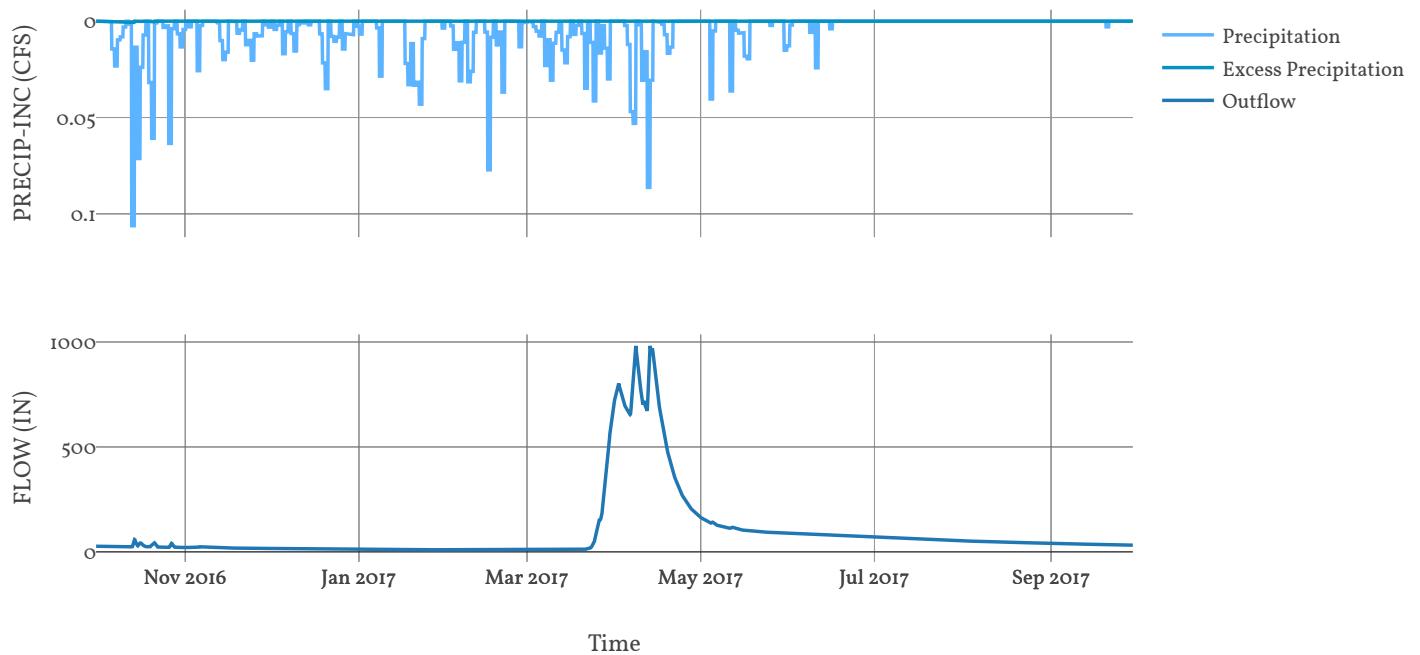
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	145
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	2900
	Number Steps	1

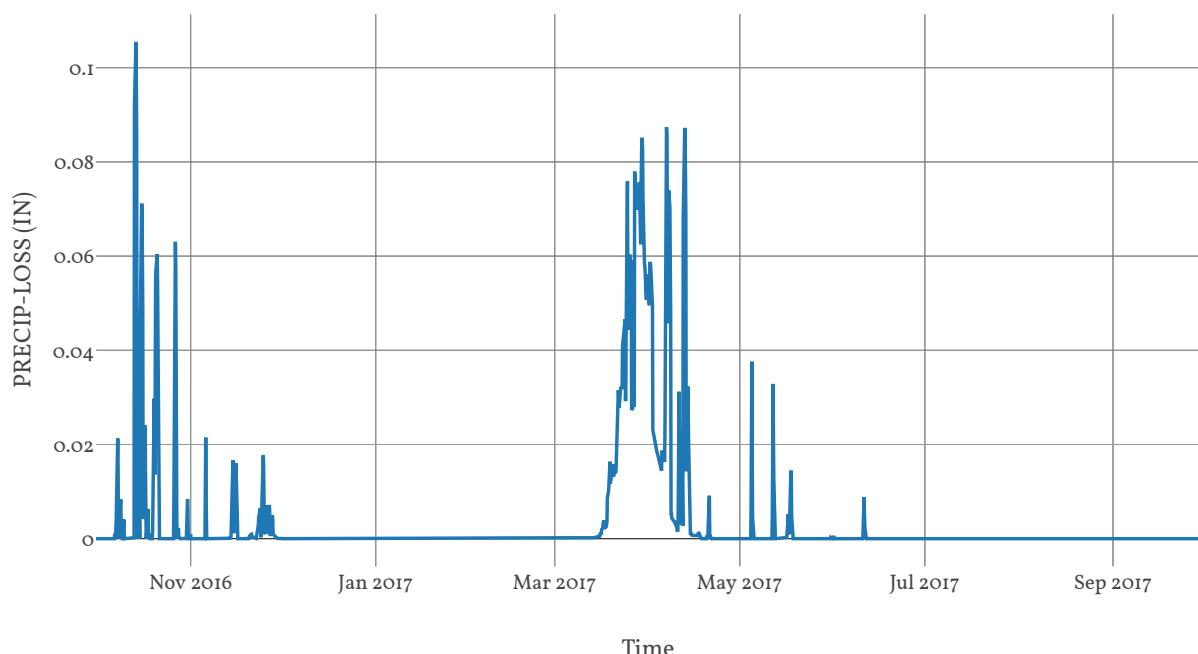
Statistics

Name	Value	Unit
Baseflow Volume	62954.55	Ac-ft
Precipitation Volume	248341.84	Ac-ft
Loss Volume	164877.03	Ac-ft
Excess Volume	1062.01	Ac-ft

Precipitation and Outflow

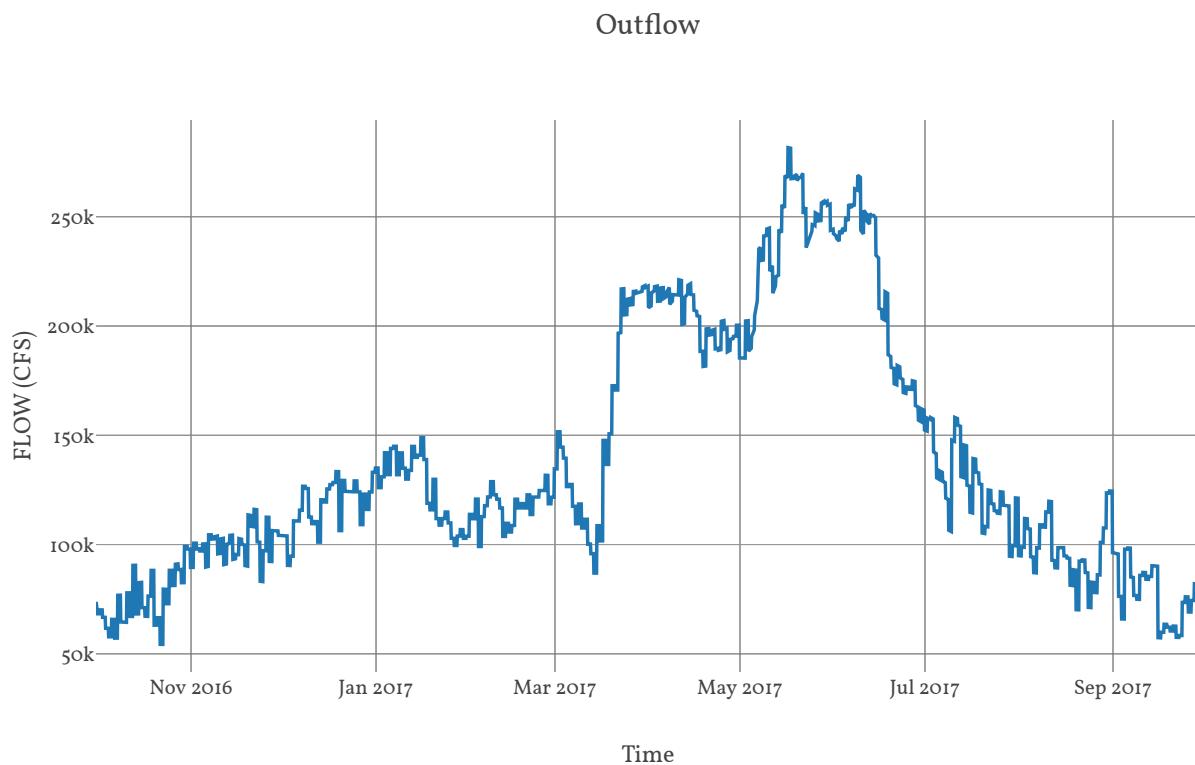


Precipitation Loss



Junction : Wells_IN

Observed Hydrograph : Wells In
Downstream : Wells



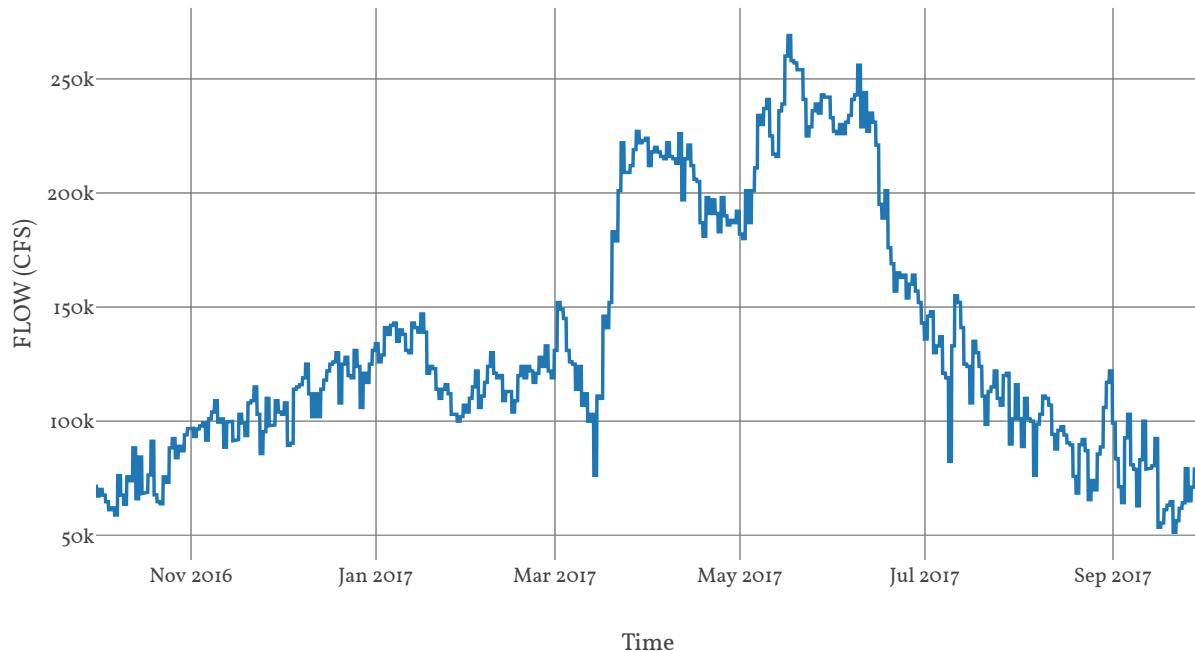
Reservoir : Wells

Quality Method : Unspecified

Method : Specified Outflow

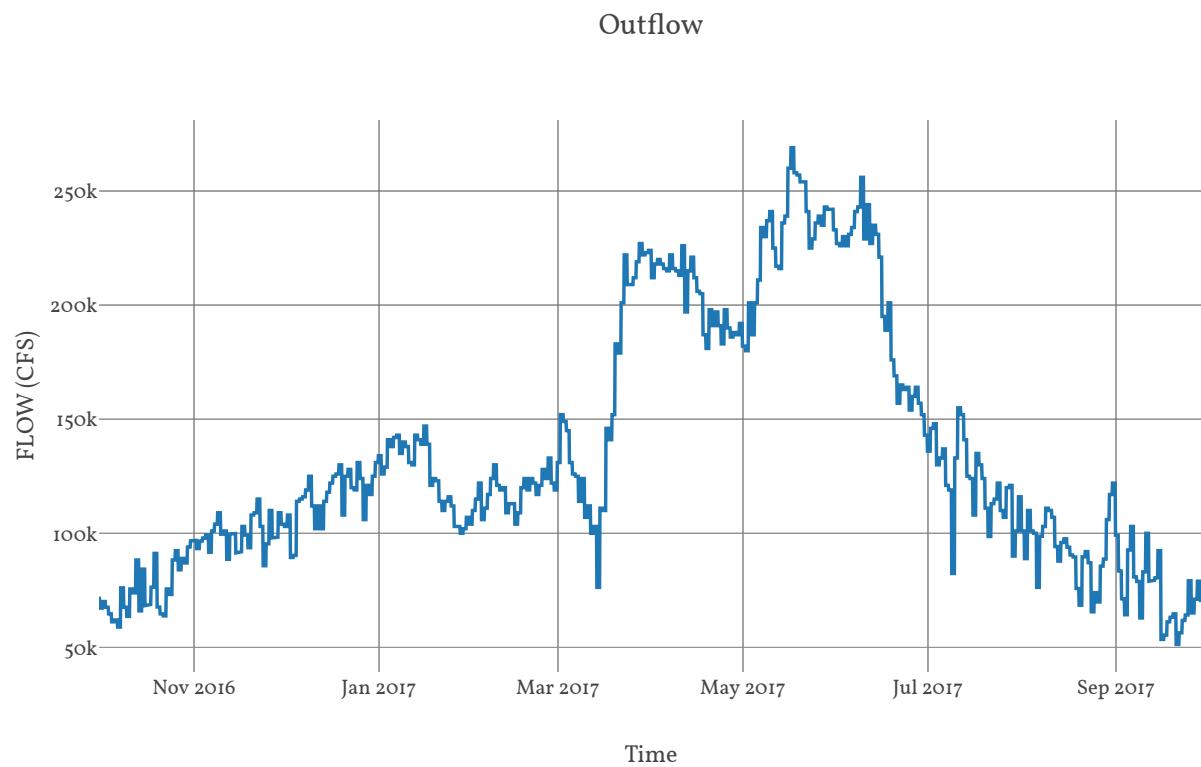
Downstream : Wells_OUT

Outflow



Junction : Wells_OUT

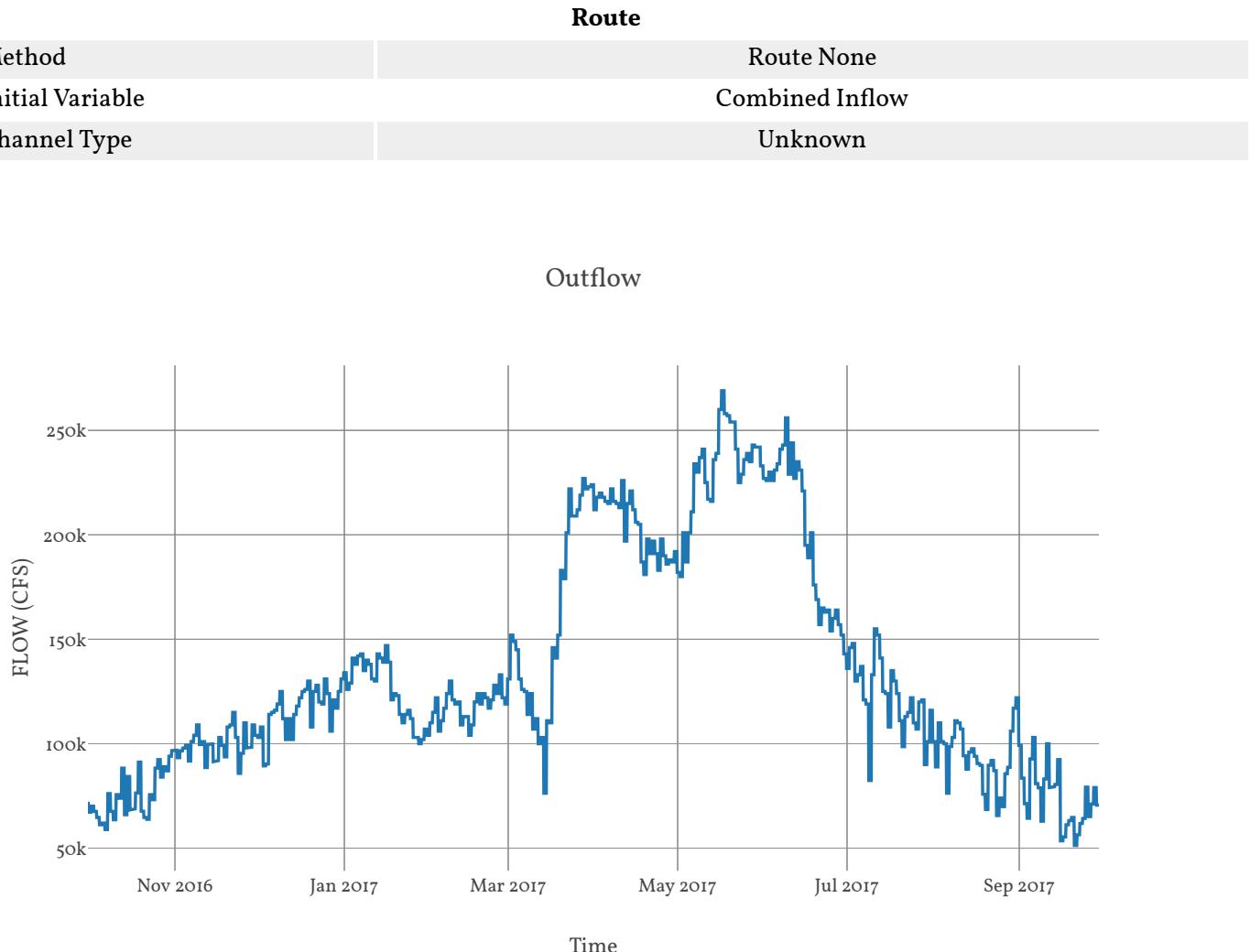
Downstream : MidColumbia_R060



Reach : MidColumbia_Ro60

Loss Method : None

Downstream : ChelanRv_CF



Subbasin : LkChelan_Soro

Area : 584.92

Latitude : 48.08

Longitude : -120.41

Downstream : LkChelan_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	9.27
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	12.03
Storage Coefficient	12.03

Baseflow

Method

Linear Reservoir

Baseflow Layer List

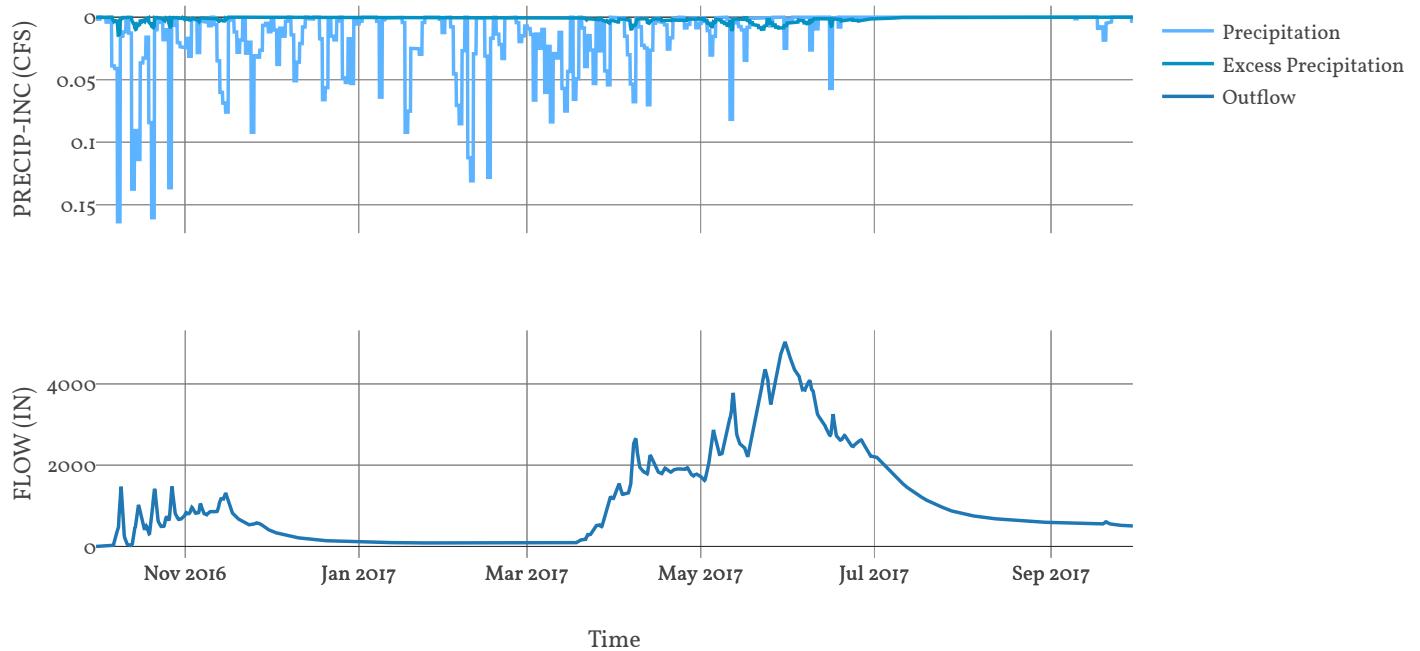
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	240.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	2
	Storage Coefficient	4812
	Number Steps	1

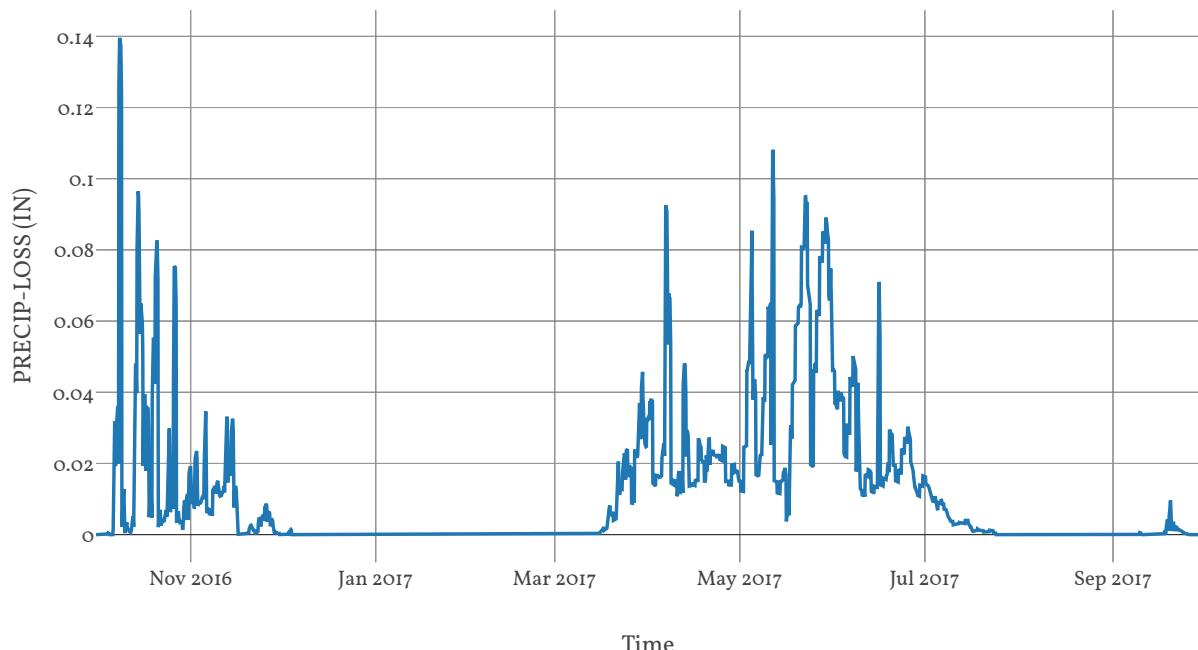
Statistics

Name	Value	Unit
Baseflow Volume	651047.28	Ac-ft
Precipitation Volume	1339906.23	Ac-ft
Loss Volume	1067487.13	Ac-ft
Excess Volume	109066.52	Ac-ft

Precipitation and Outflow



Precipitation Loss



Subbasin : LkChelan_So20

Area : 341.76

Observed Hydrograph : Chelan river at chelan

Latitude : 48.39

Longitude : -120.85

Downstream : LkChelan_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	3
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	6.25
Storage Coefficient	6.25

Baseflow

Method

Linear Reservoir

Baseflow Layer List

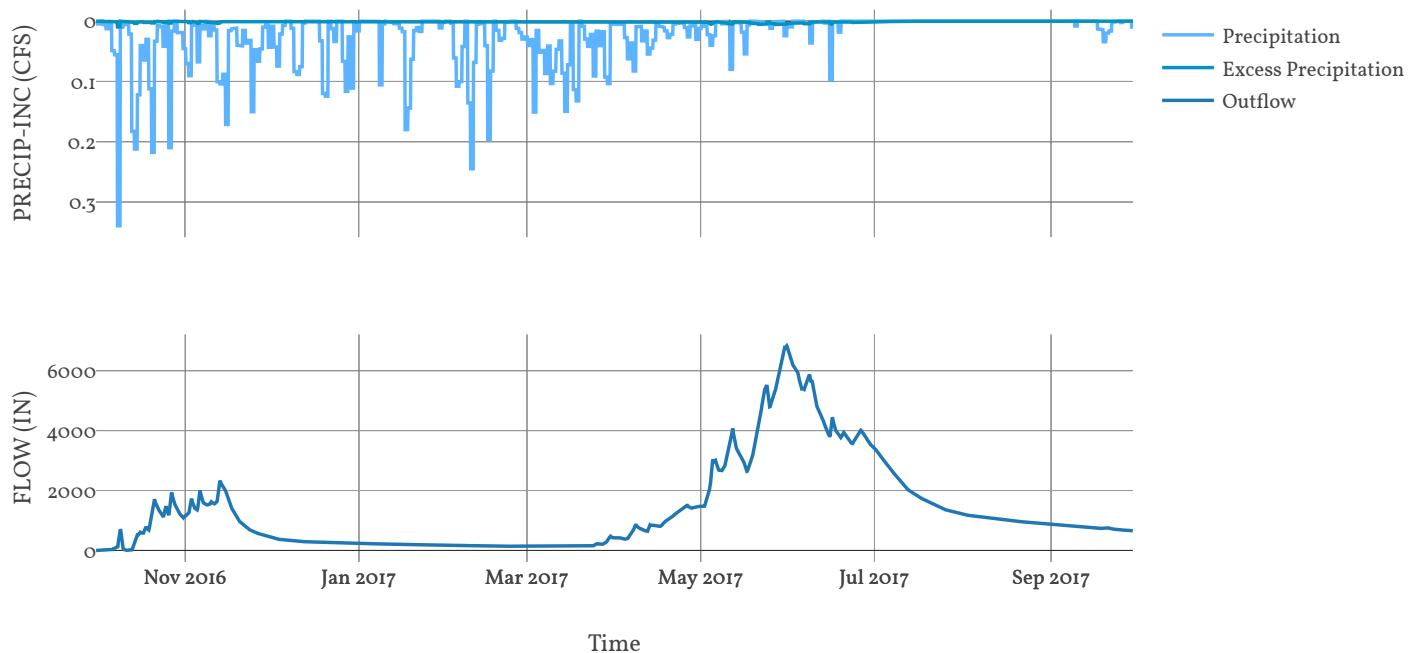
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	125
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	2
	Storage Coefficient	2500
	Number Steps	1

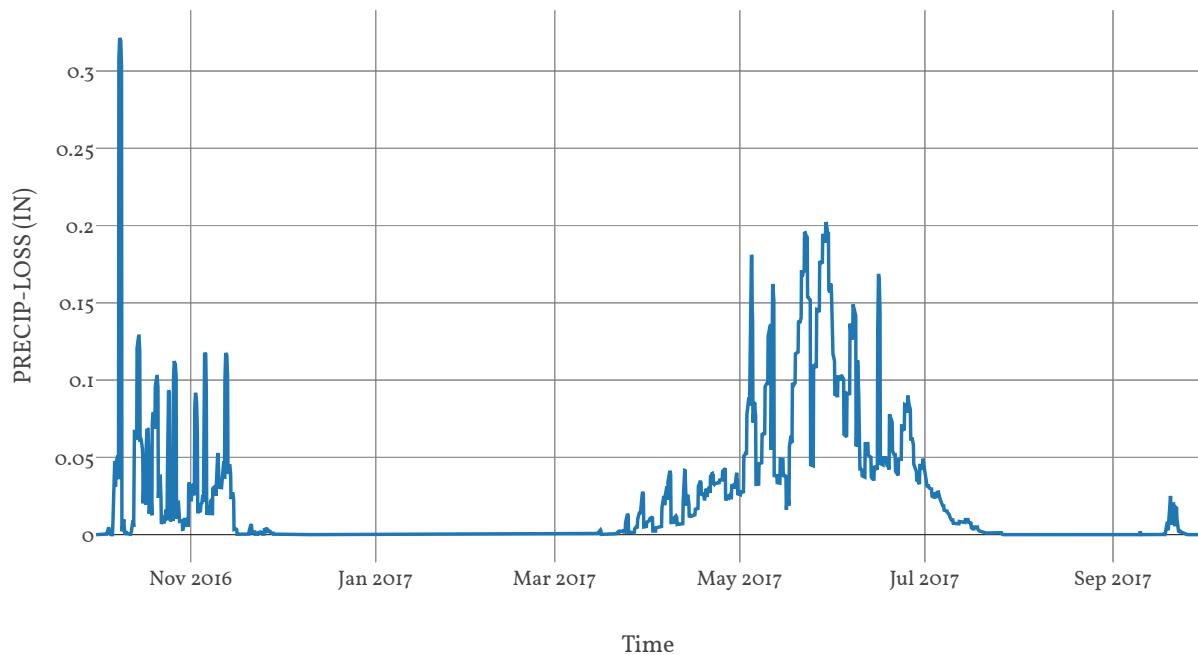
Statistics

Name	Value	Unit
Baseflow Volume	913047.45	Ac-ft
Precipitation Volume	1335867.21	Ac-ft
Loss Volume	1194449.59	Ac-ft
Excess Volume	36941.74	Ac-ft

Precipitation and Outflow

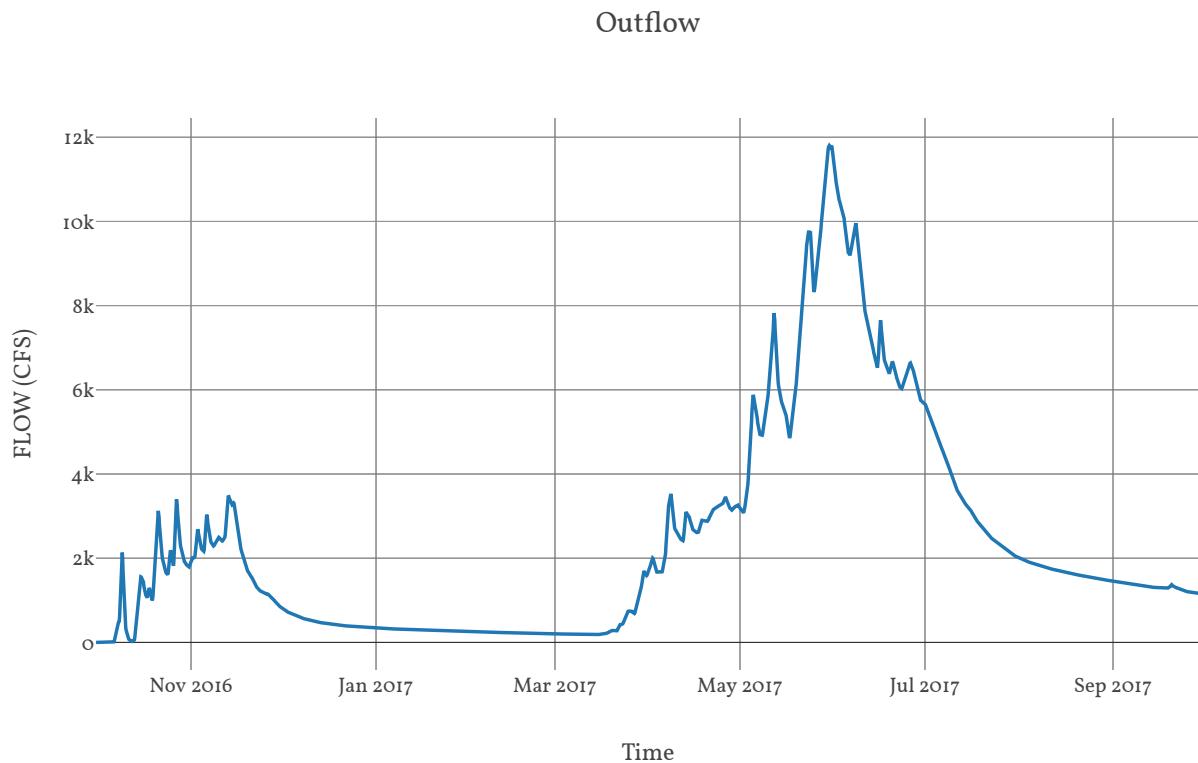


Precipitation Loss



Junction : LkChelan_IN

Downstream : Lk Chelan



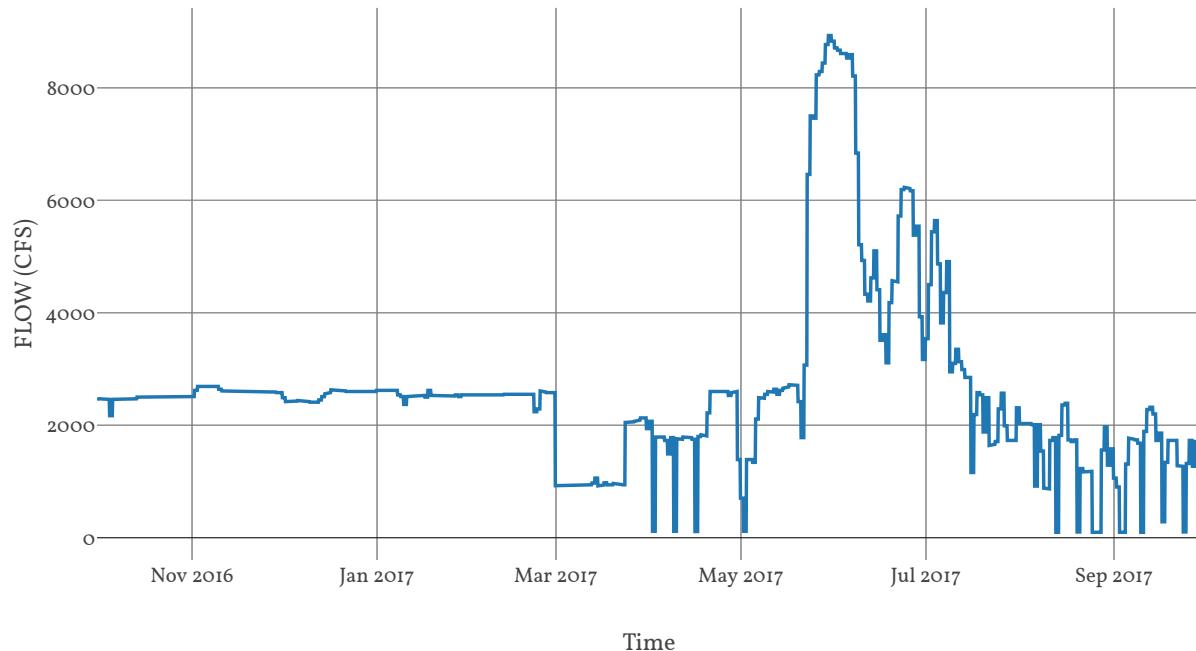
Reservoir : LkChelan

Quality Method : Unspecified

Method : Specified Outflow

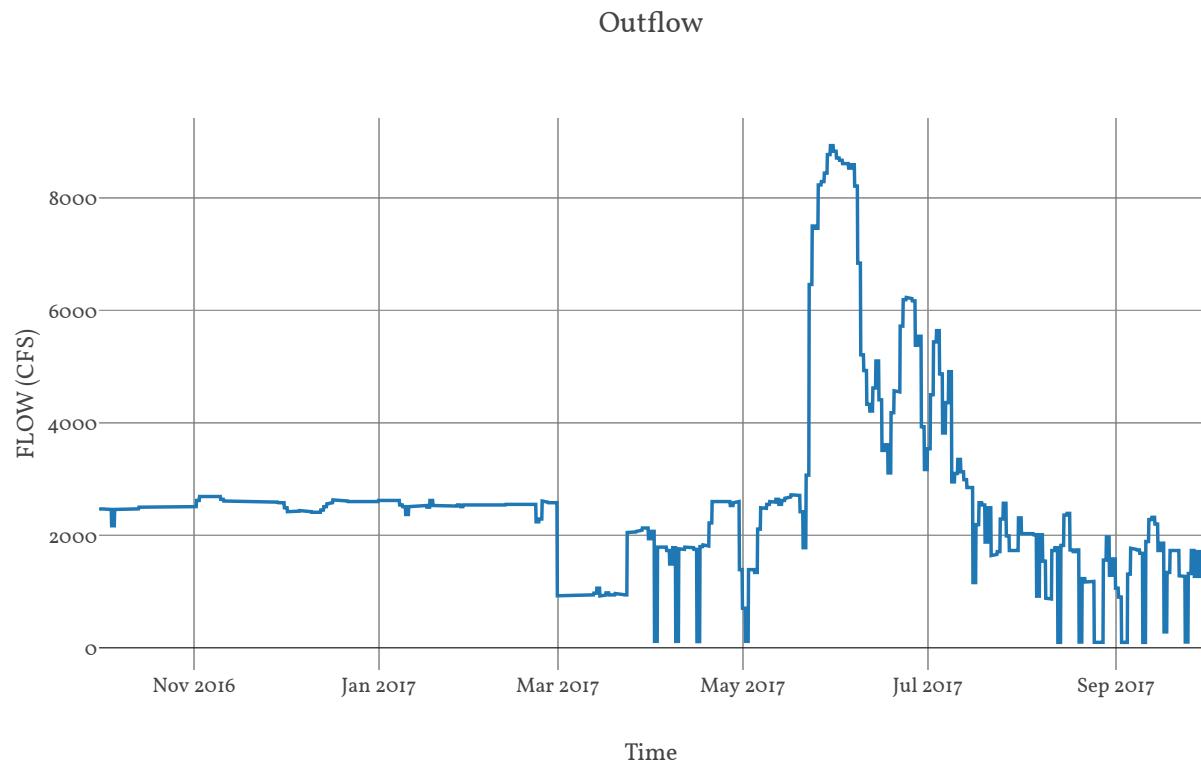
Downstream : LkChelan_OUT

Outflow



Junction : LkChelan_OUT

Downstream : ChelanRv_CF



Subbasin : MidColumbia_So60

Area : 99.12

Latitude : 47.91

Longitude : -119.95

Downstream : ChelanRv_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.18
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.2
Storage Coefficient	5.2

Baseflow

Method

Linear Reservoir

Baseflow Layer List

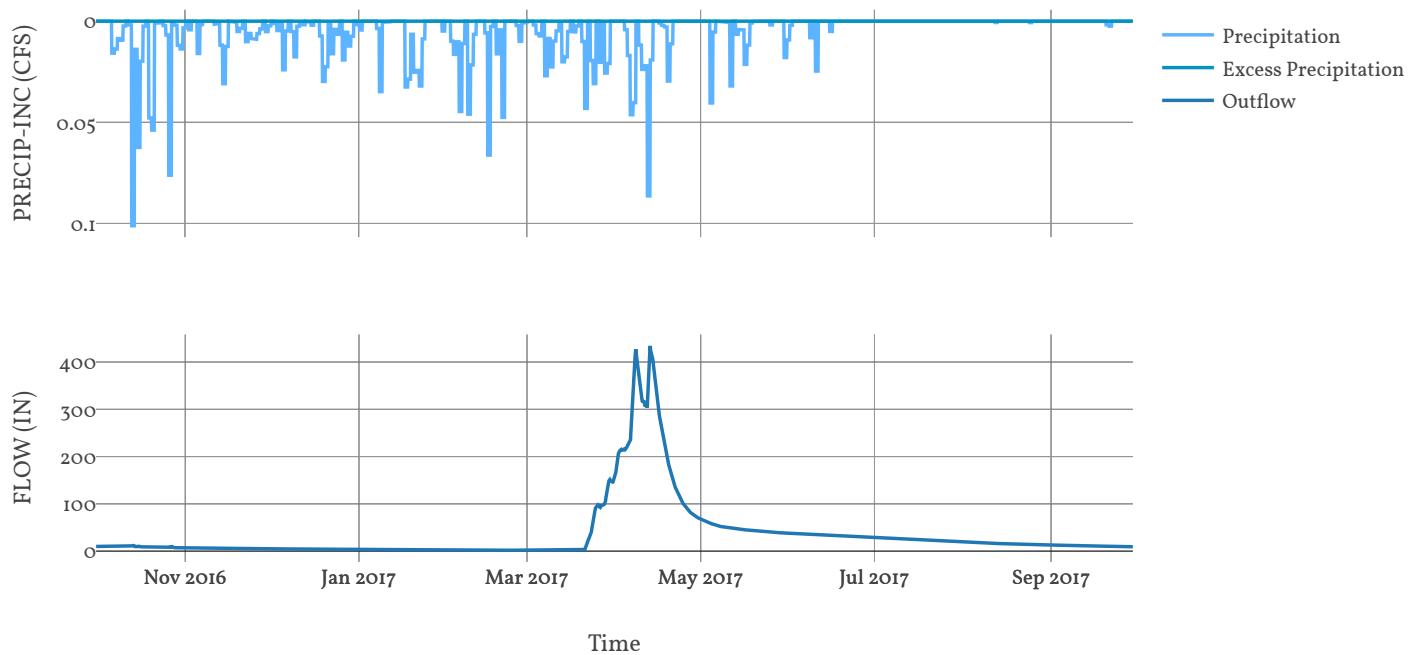
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	104
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	2080
	Number Steps	1

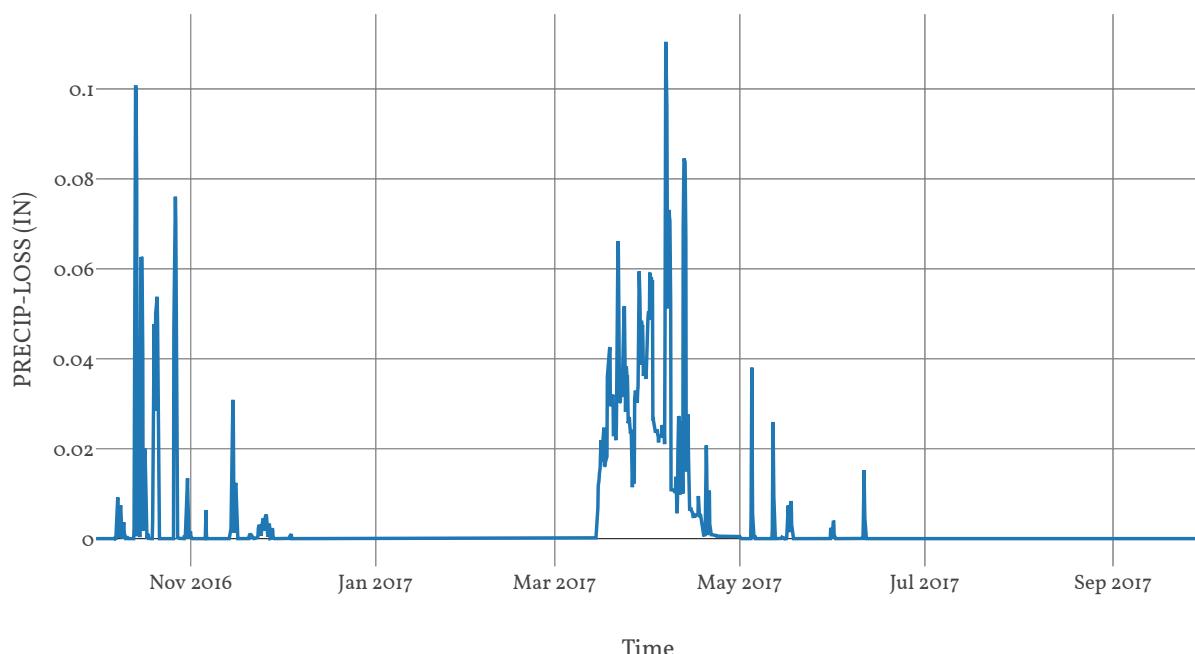
Statistics

Name	Value	Unit
Baseflow Volume	24271.28	Ac-ft
Precipitation Volume	91828.47	Ac-ft
Loss Volume	62172.34	Ac-ft
Excess Volume	112.11	Ac-ft

Precipitation and Outflow

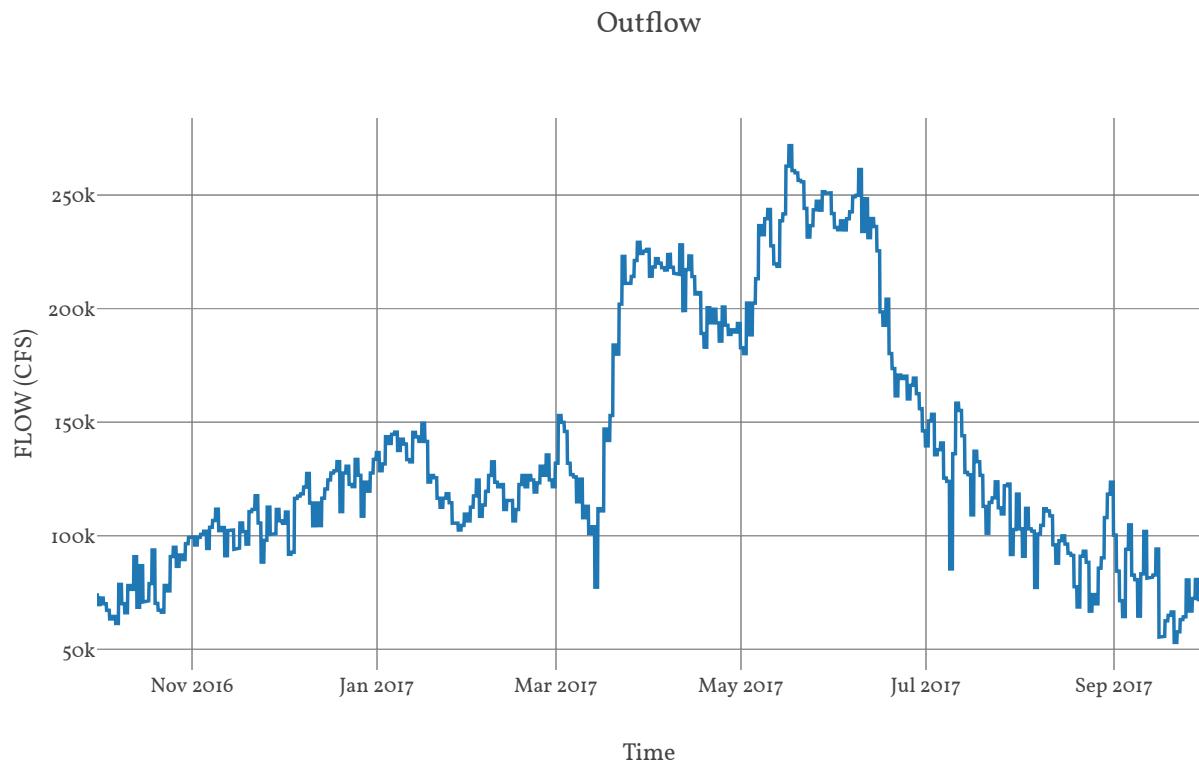


Precipitation Loss



Junction : ChelanRv_CF

Downstream : MidColumbia_R055



Reach : MidColumbia_R055

Loss Method : None

Downstream : EntiatRv_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : EntiatRv_So20

Area : 203.31

Latitude : 47.99

Longitude : -120.57

Downstream : Entiat Nr Ardenvoir

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.13
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	1

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	1
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	7.71
Storage Coefficient	7.71

Baseflow

Method

Linear Reservoir

Baseflow Layer List

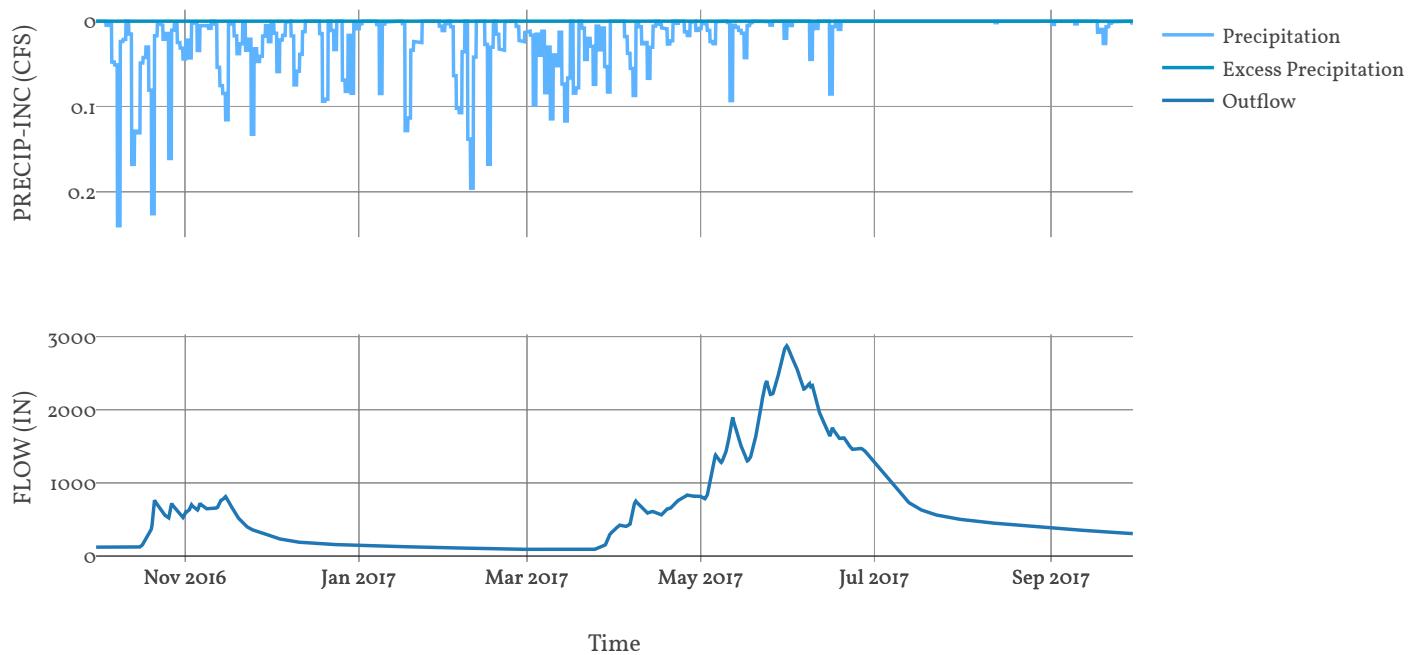
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	154.2
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.6
	Layer Number	2
	Storage Coefficient	3084
	Number Steps	1

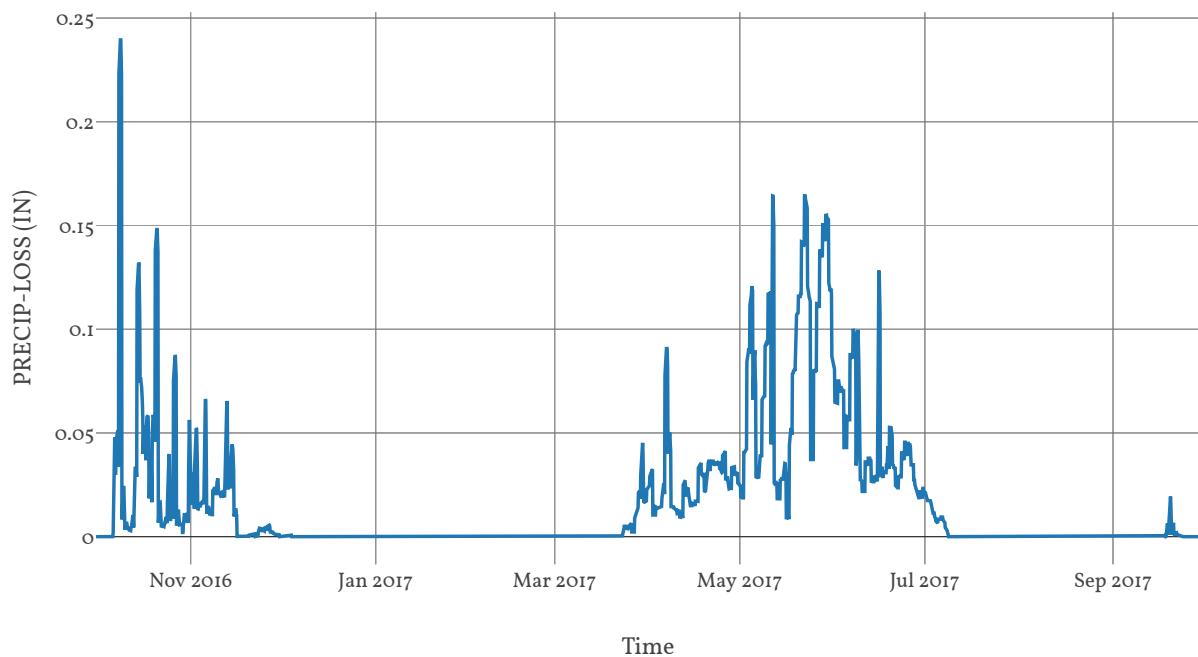
Statistics

Name	Value	Unit
Baseflow Volume	431000.71	Ac-ft
Precipitation Volume	620700.44	Ac-ft
Loss Volume	564525	Ac-ft
Excess Volume	734.84	Ac-ft

Precipitation and Outflow



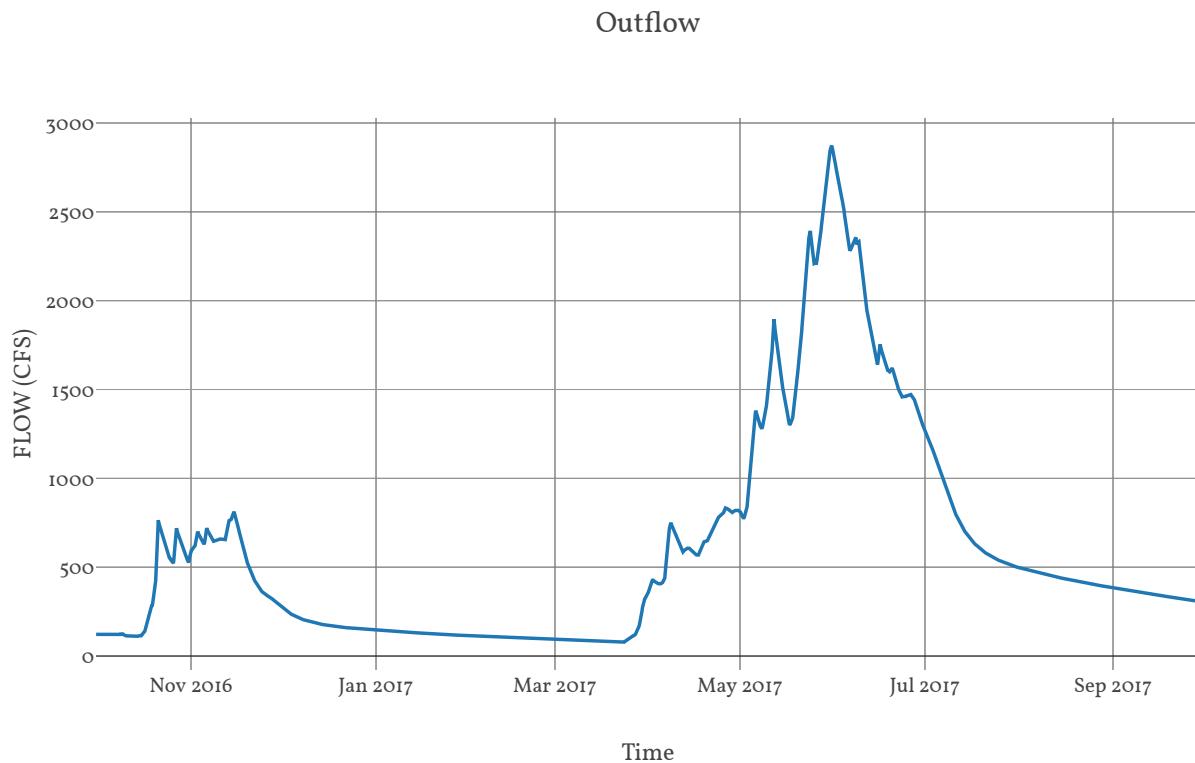
Precipitation Loss



Junction : EntiatNrArdenvoir

Observed Hydrograph : Entiat river near ardenvoir

Downstream : EntiatRv_R015



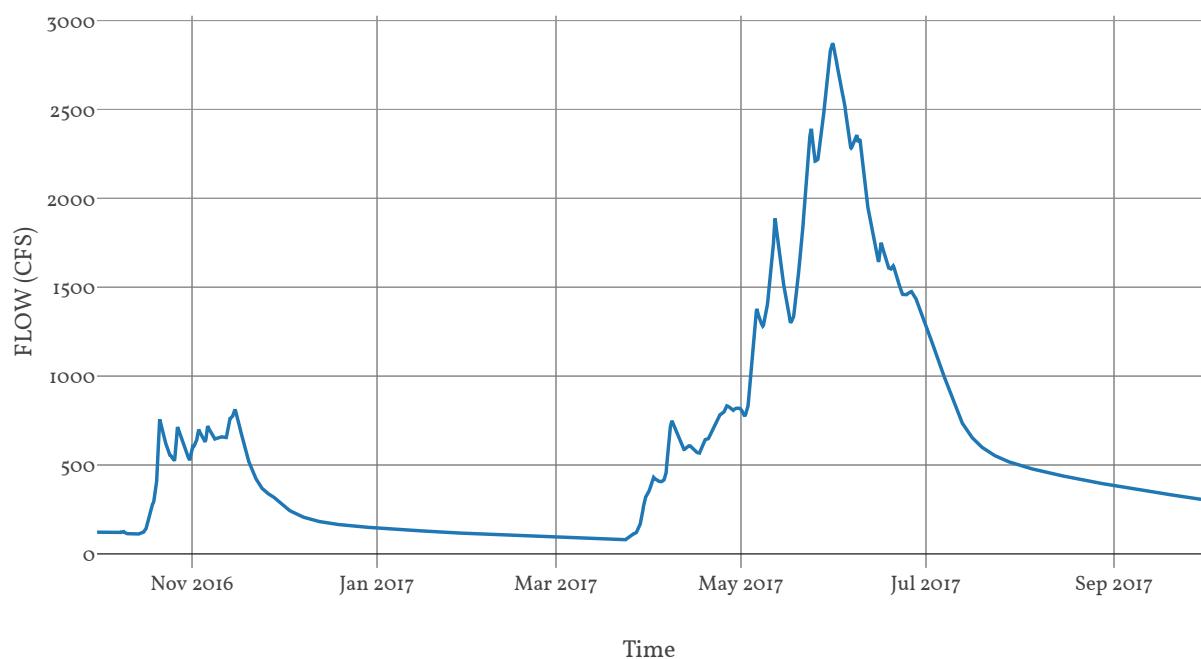
Reach : EntiatRv_Ro15

Loss Method : None

Downstream : MadRv_CF

Route		
Space Time Method		Auto Dx Dt
Method		Muskingum Cunge
Maximum Depth Iterations		20
Index Parameter Type		Index Flow
Initial Variable		Combined Inflow
Index Flow		20000
Channel Type		Eight Point
Maximum Route Step Iterations		30
Channel	Channel Mannings N	0.04
	Nvalue Ratio	1
	Length	41062
	Max Depth Difference	0
	Left Mannings N	0.15
	Channel Type	Eight Point
	Mannings N	0.04
	Cross Section Name	EntiatRv_Ro15
	Energy Slope	0.01
	Right Mannings N	0.15

Outflow



Subbasin : MadRv_Soro

Area : 91.01

Observed Hydrograph : Mad river at ardenvoir

Latitude : 47.8

Longitude : -120.51

Downstream : MadRv_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.01
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.72
Storage Coefficient	5.72

Baseflow

Method

Linear Reservoir

Baseflow Layer List

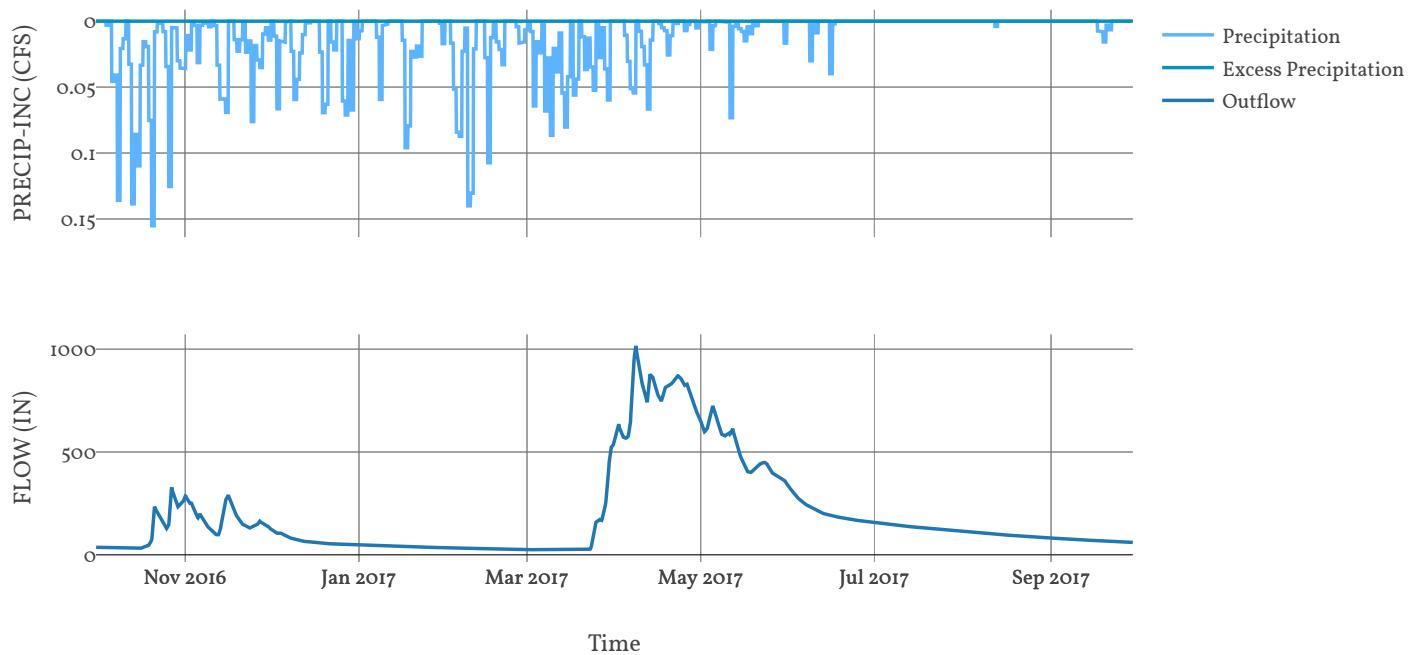
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	114.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.4
	Layer Number	2
	Storage Coefficient	2288
	Number Steps	1

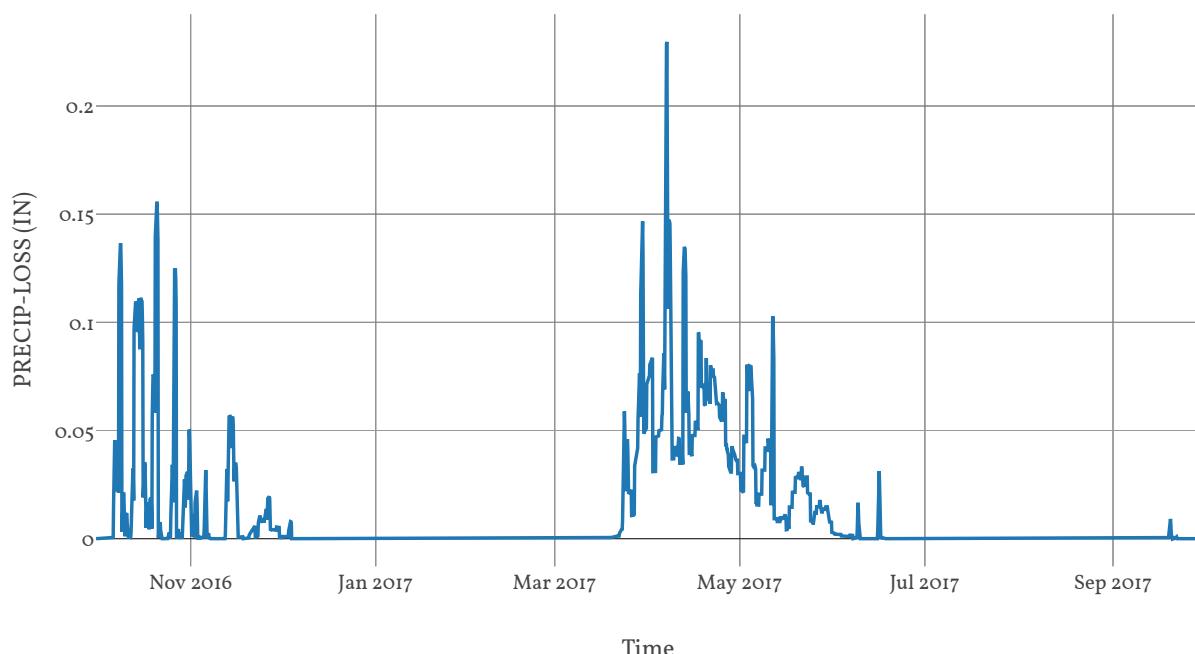
Statistics

Name	Value	Unit
Baseflow Volume	137762.52	Ac-ft
Precipitation Volume	204732.53	Ac-ft
Loss Volume	176864.24	Ac-ft
Excess Volume	17.69	Ac-ft

Precipitation and Outflow



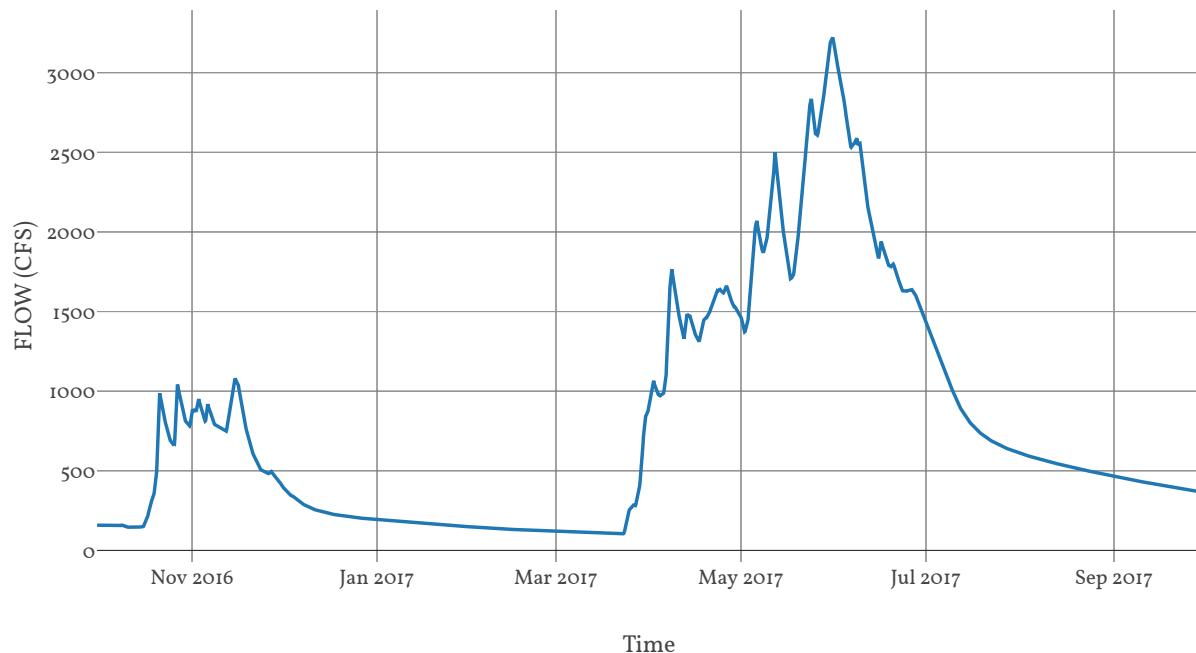
Precipitation Loss



Junction : MadRv_CF

Downstream : EntiatRv_R010

Outflow



Reach : EntiatRv_RoI0

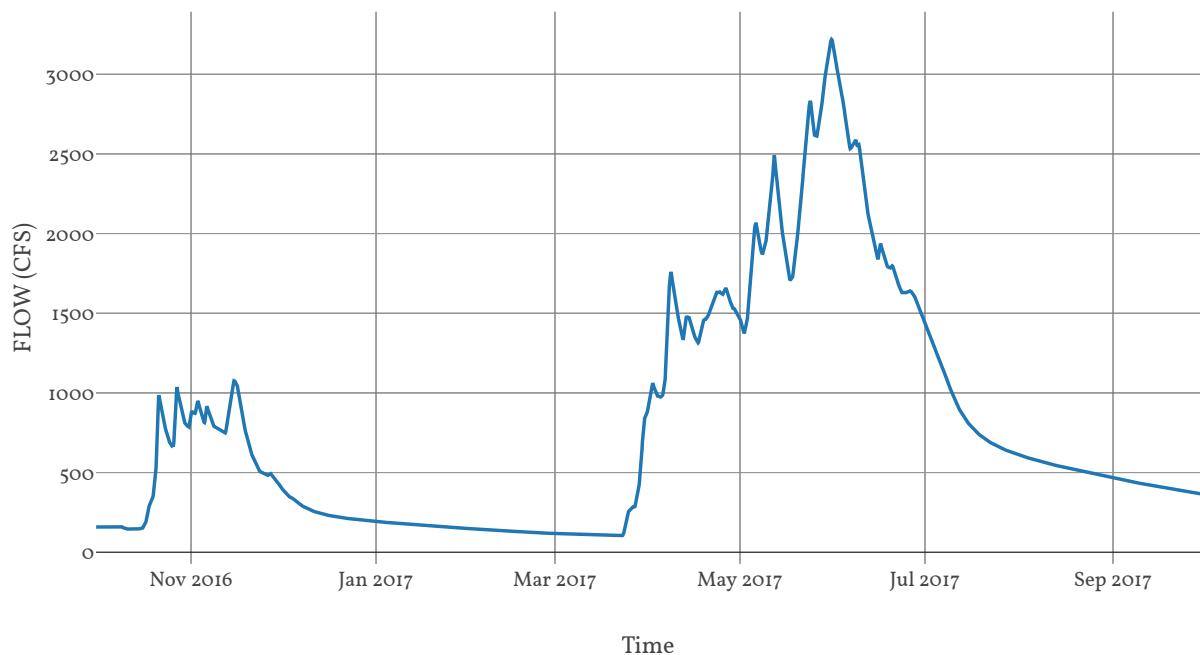
Loss Method : None

Downstream : Entiat Nr Entiat

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 58205
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name EntiatRv_RoI0
	Energy Slope 0.01
	Right Mannings N 0.15

Outflow



Subbasin : EntiatRv_Soro

Area : 119.58

Latitude : 47.72

Longitude : -120.34

Downstream : Entiat Nr Entiat

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	5.15
Storage Coefficient	5.15

Baseflow

Method

Linear Reservoir

Baseflow Layer List

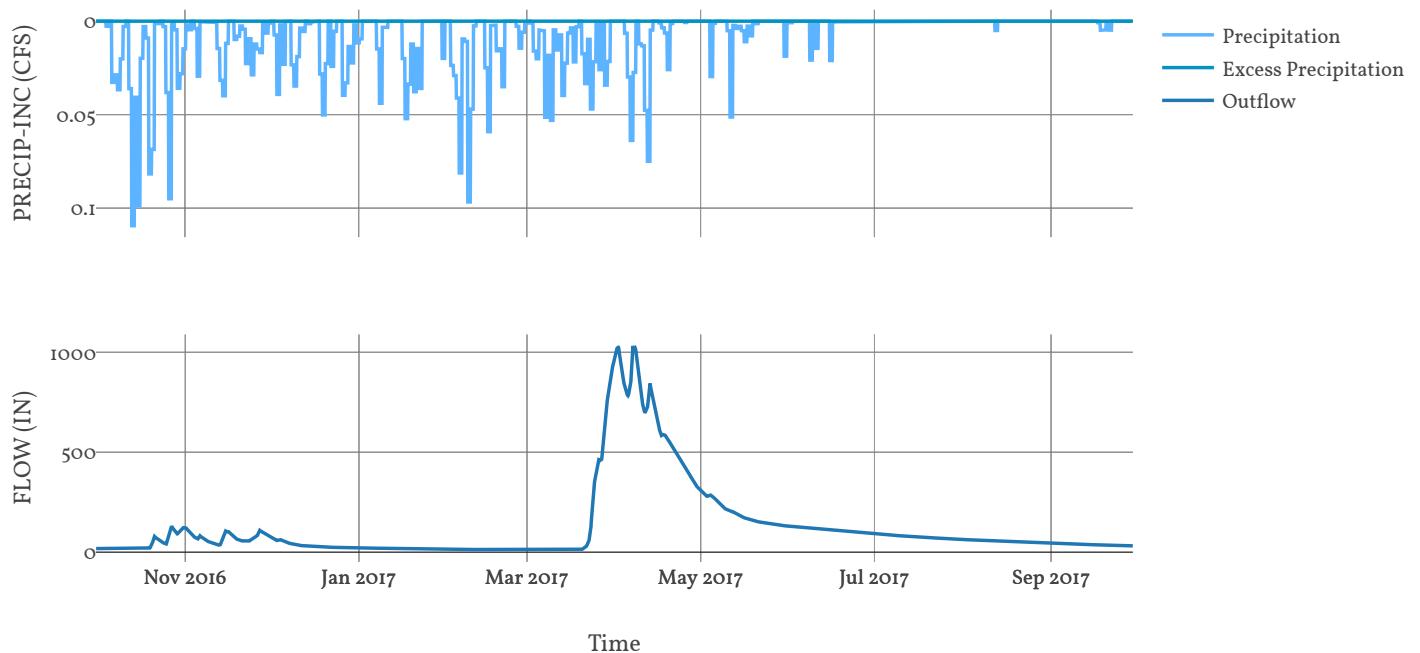
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	103
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.15
	Layer Number	2
	Storage Coefficient	2060
	Number Steps	1

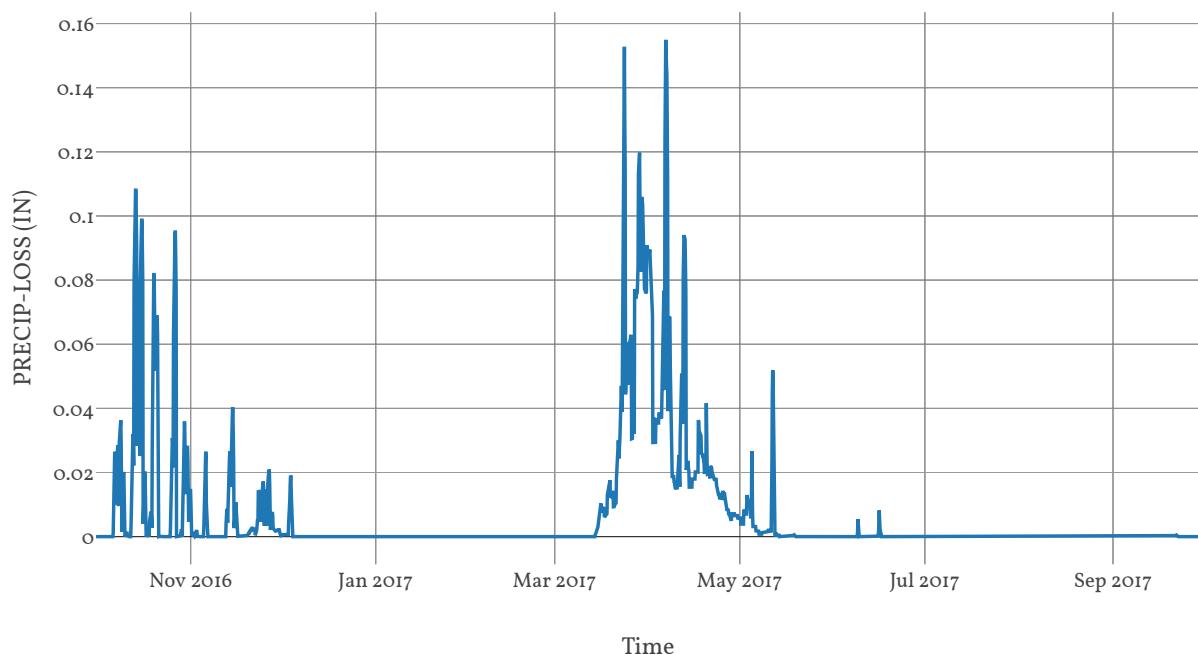
Statistics

Name	Value	Unit
Baseflow Volume	88887.28	Ac-ft
Precipitation Volume	171971.81	Ac-ft
Loss Volume	135328.57	Ac-ft
Excess Volume	0	Ac-ft

Precipitation and Outflow



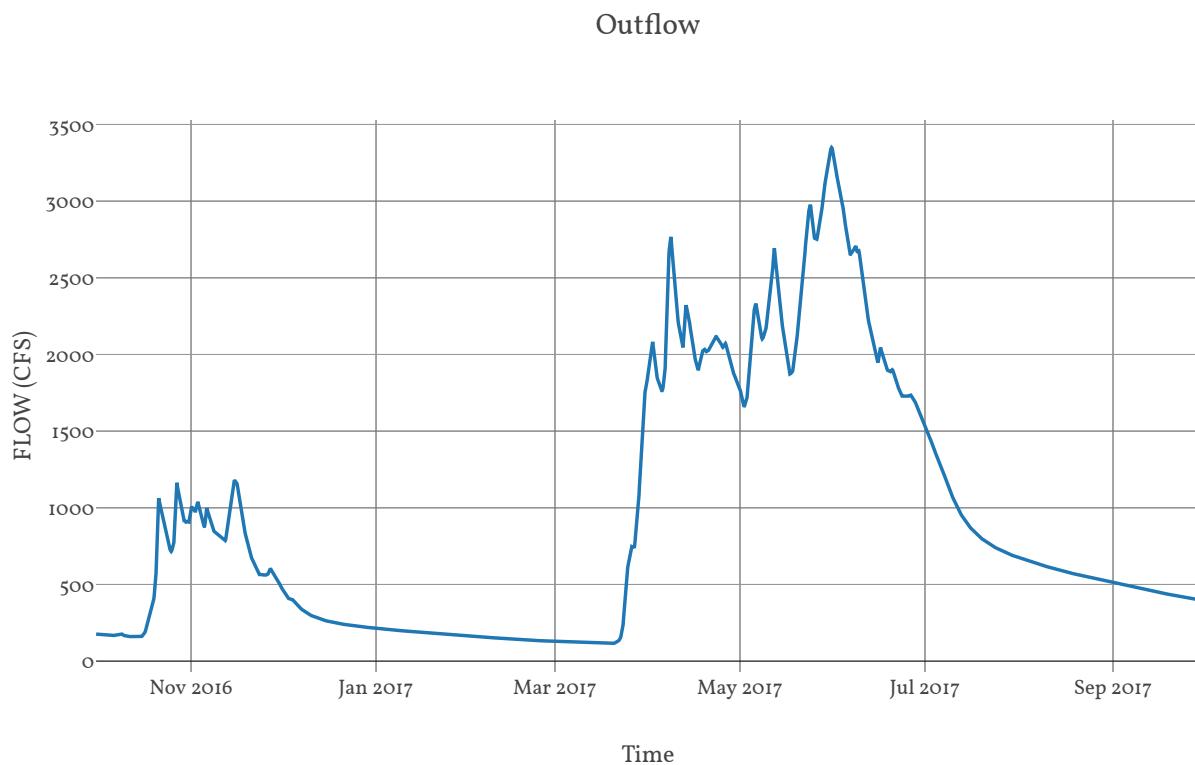
Precipitation Loss



Junction : EntiatNrEntiat

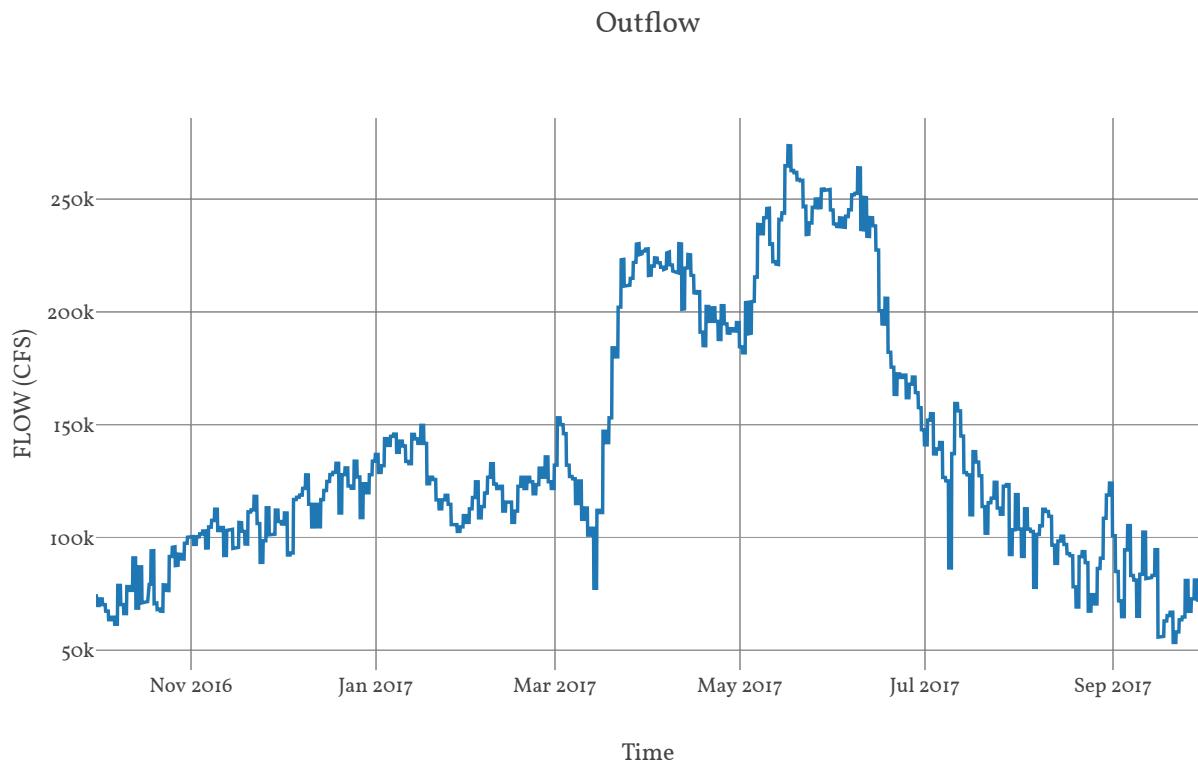
Observed Hydrograph : Entiat river near entiat

Downstream : EntiatRv_CF



Junction : EntiatRv_CF

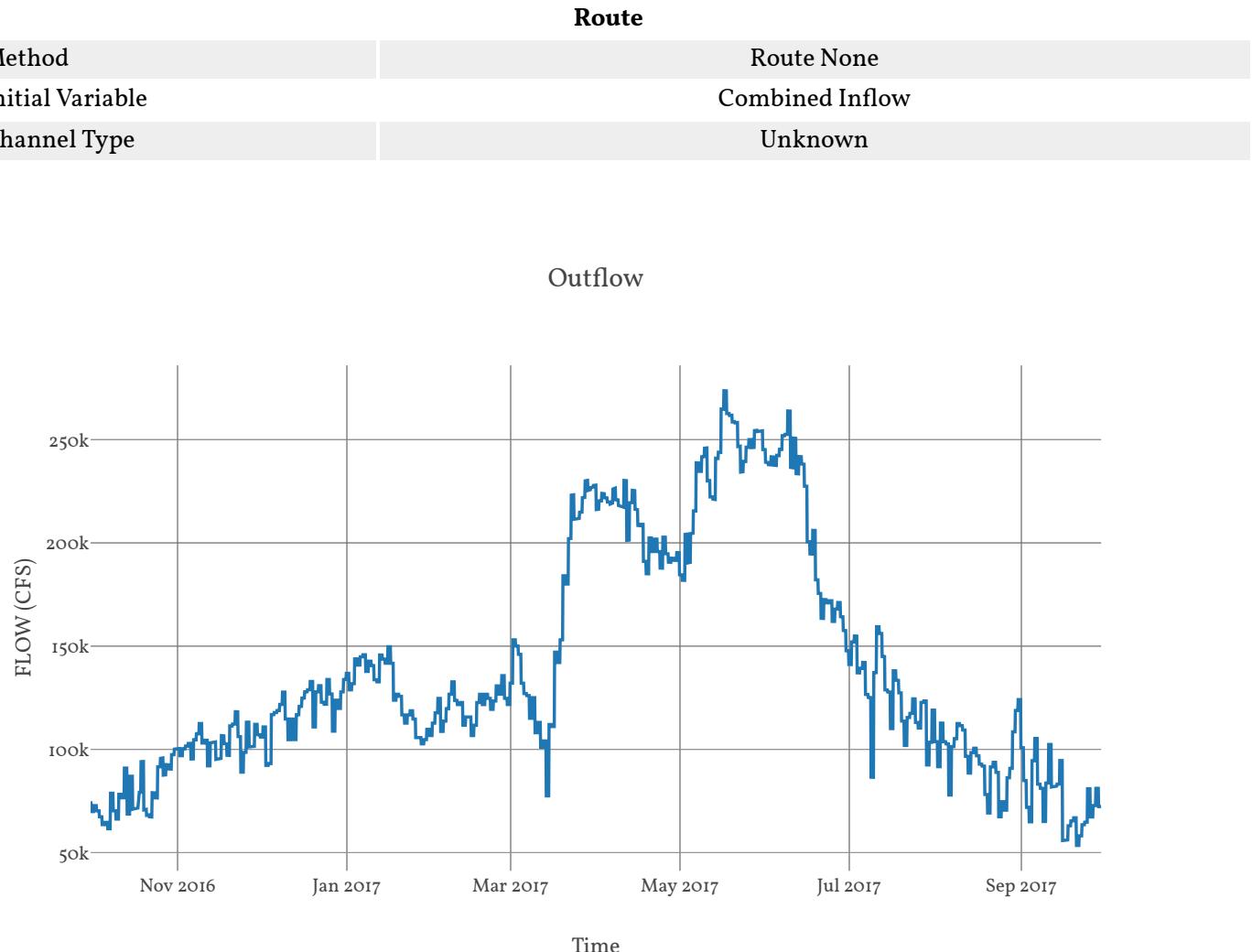
Downstream : MidColumbia_R050



Reach : MidColumbia_R050

Loss Method : None

Downstream : RockyReach_IN



Subbasin : MidColumbia_So50

Area : 220.31

Latitude : 47.7

Longitude : -120.18

Downstream : RockyReach_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	5.1
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	10.77
Storage Coefficient	10.77

Baseflow

Method

Linear Reservoir

Baseflow Layer List

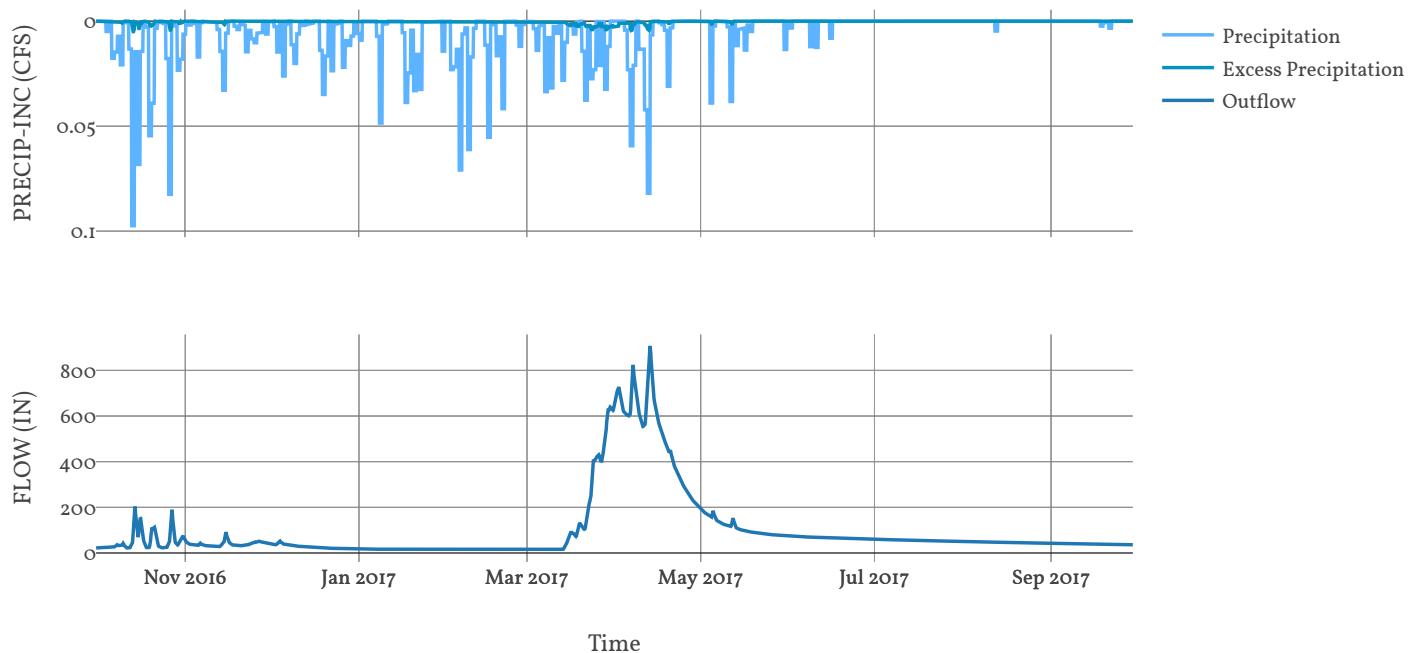
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	215.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	4308
	Number Steps	1

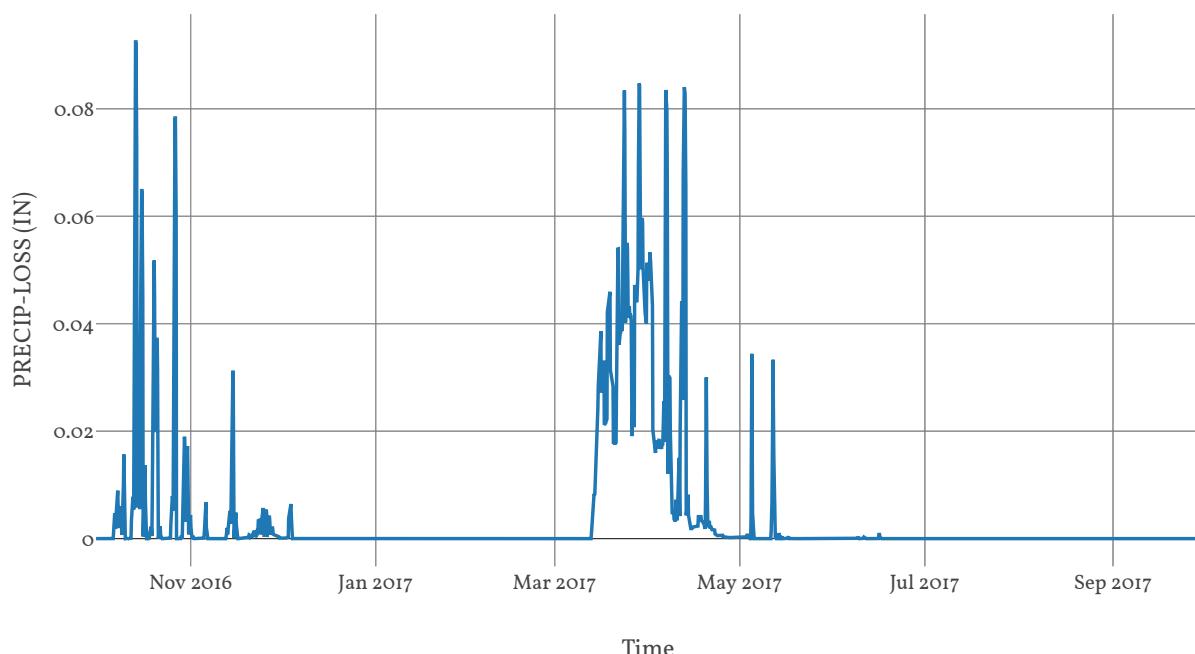
Statistics

Name	Value	Unit
Baseflow Volume	61282.5	Ac-ft
Precipitation Volume	219291.62	Ac-ft
Loss Volume	146046.39	Ac-ft
Excess Volume	7848.65	Ac-ft

Precipitation and Outflow

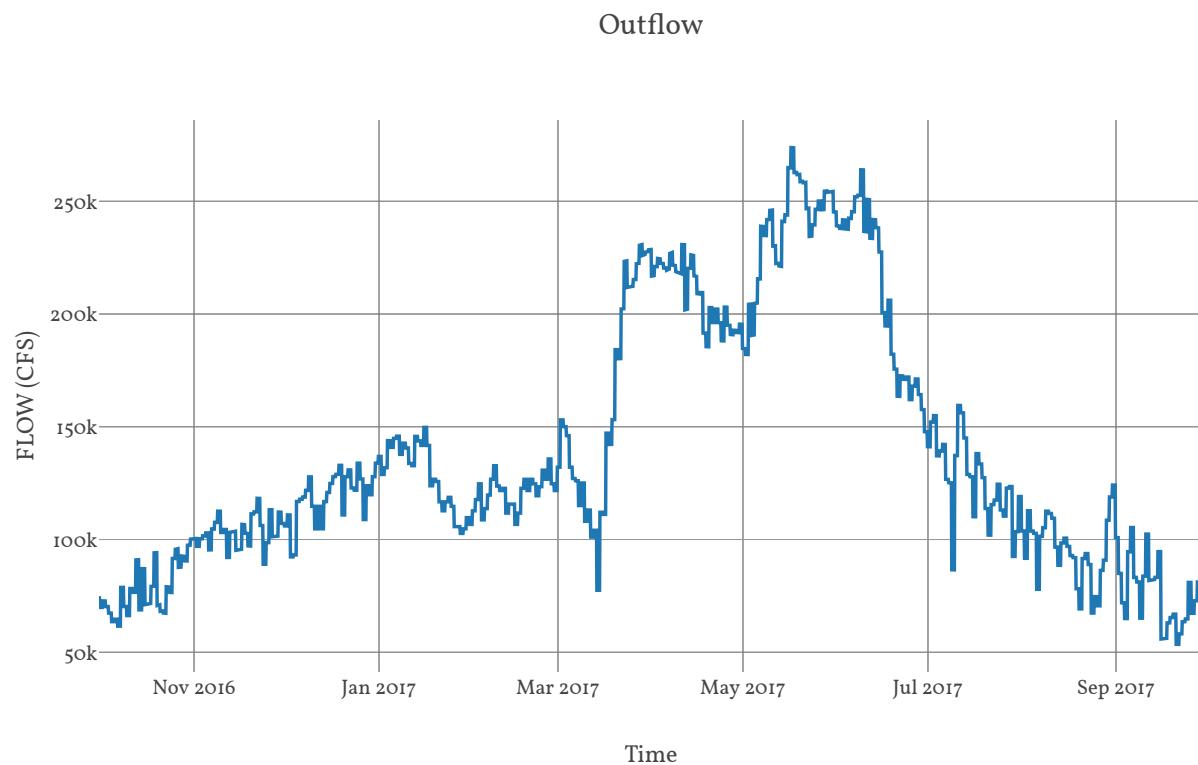


Precipitation Loss



Junction : RockyReach_IN

Observed Hydrograph : Rocky Reach In
Downstream : Rocky Reach

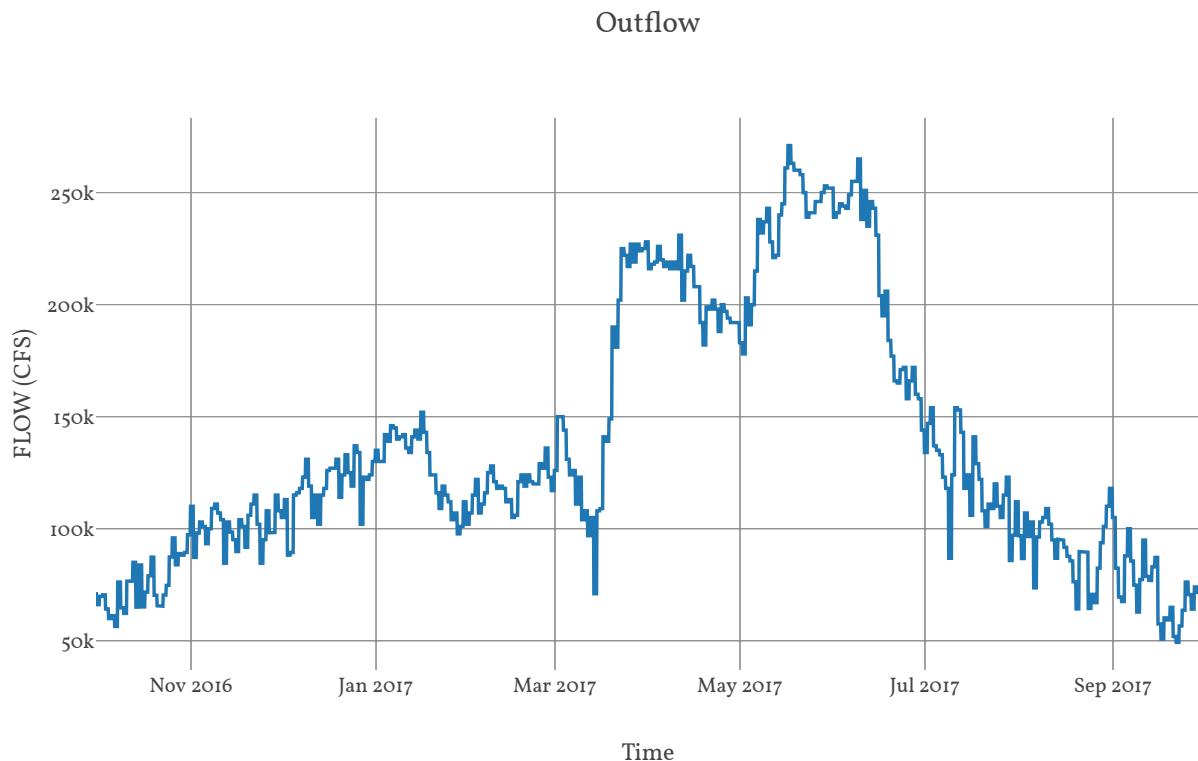


Reservoir : RockyReach

Quality Method : Unspecified

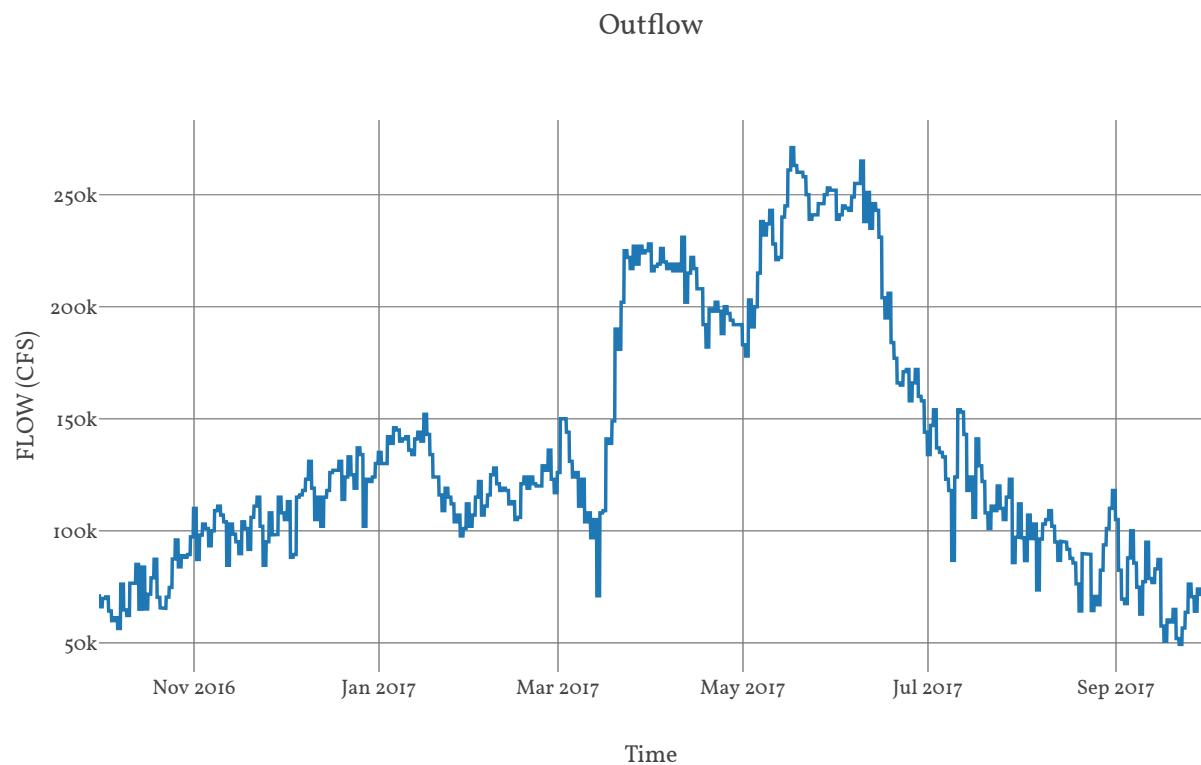
Method : Specified Outflow

Downstream : RockyReach_OUT



Junction : RockyReach_OUT

Downstream : MidColumbia_R045



Reach : MidColumbia_Ro45

Loss Method : None

Downstream : WenatcheeRv_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : ChiwawaRv_So10

Area : 172.23

Latitude : 48

Longitude : -120.79

Downstream : Chiwawa Nr Plain

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.13
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	7.86
Storage Coefficient	7.86

Baseflow

Method

Linear Reservoir

Baseflow Layer List

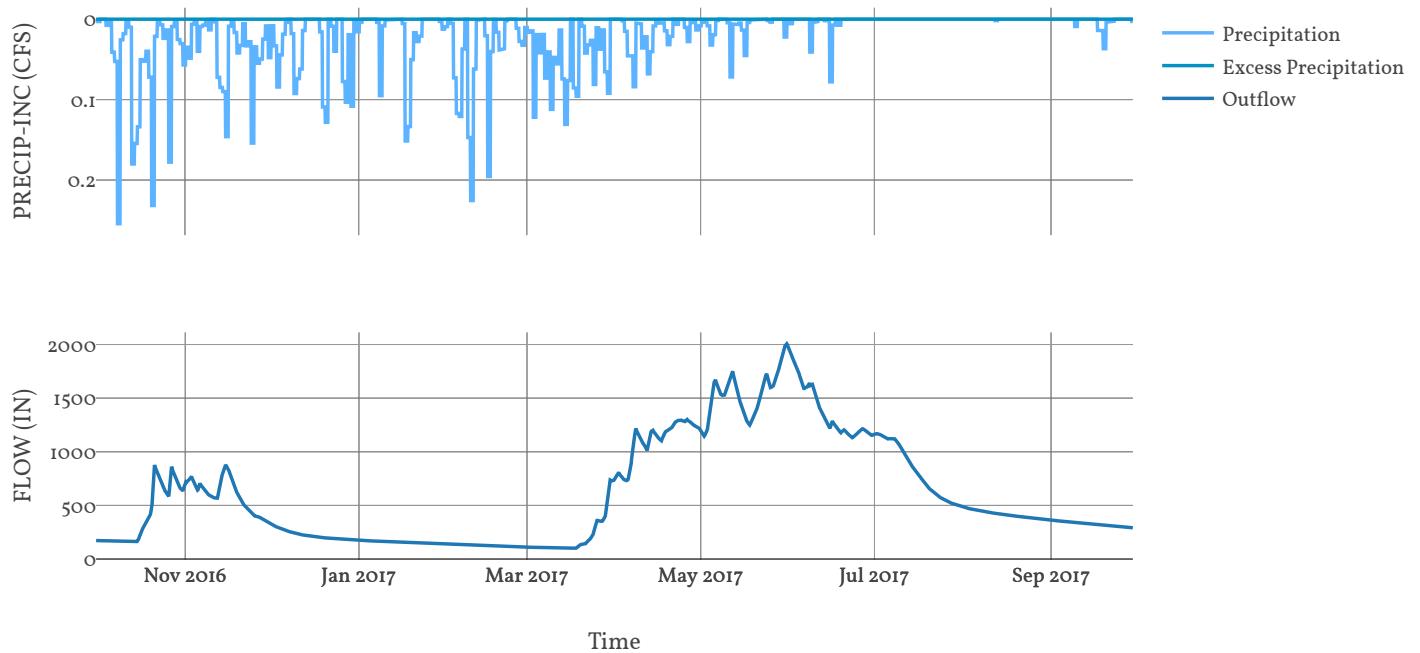
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	157.2
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	1
	Layer Number	2
	Storage Coefficient	3144
	Number Steps	1

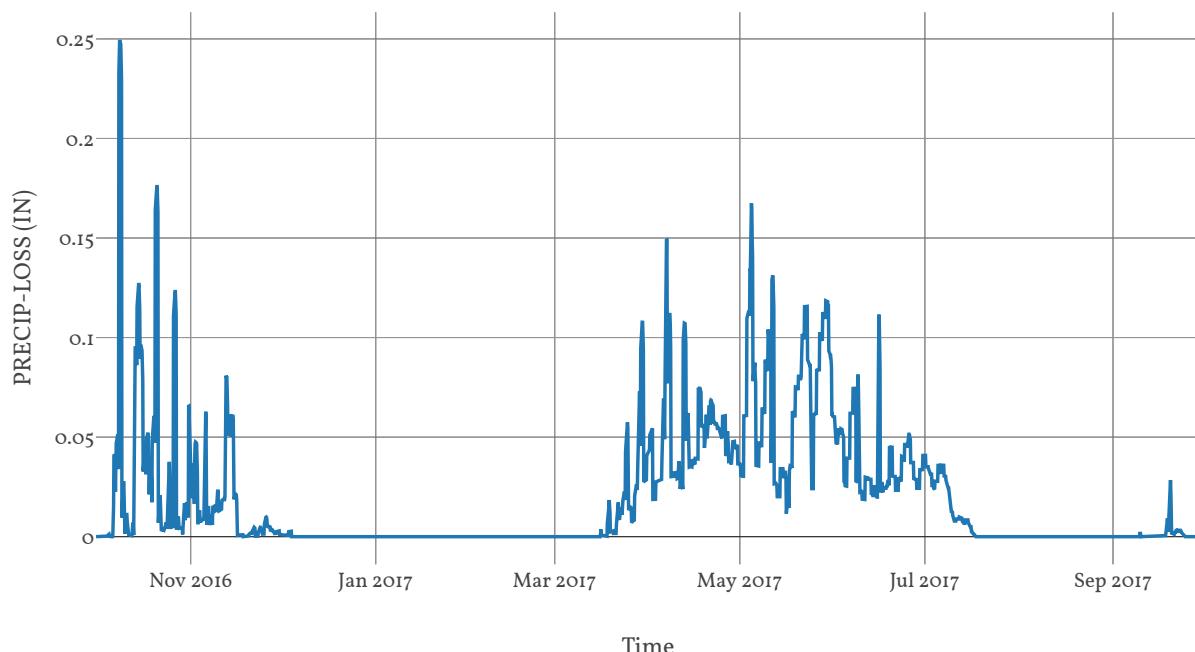
Statistics

Name	Value	Unit
Baseflow Volume	439119.67	Ac-ft
Precipitation Volume	596494.37	Ac-ft
Loss Volume	542609.53	Ac-ft
Excess Volume	706.31	Ac-ft

Precipitation and Outflow



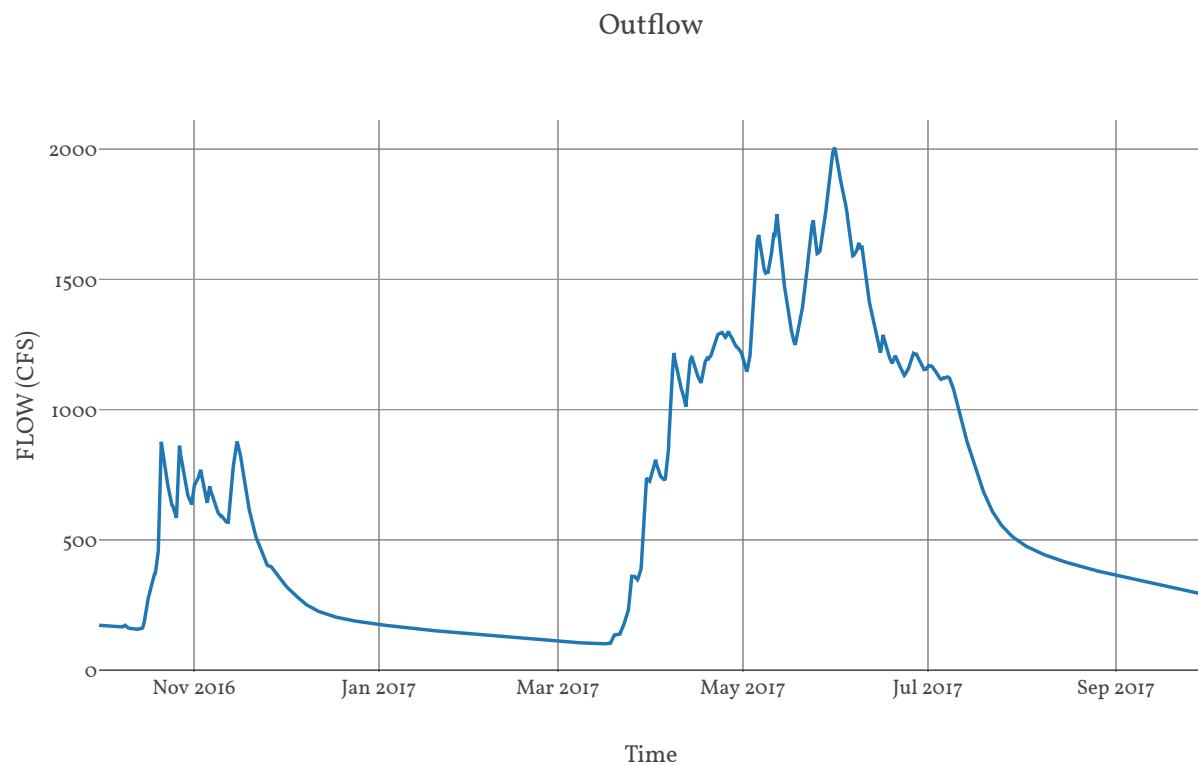
Precipitation Loss



Junction : ChiwawaNrPlain

Observed Hydrograph : Chiwawa river near plain

Downstream : WenRv_Ro30



Reach : WenRv_Ro30

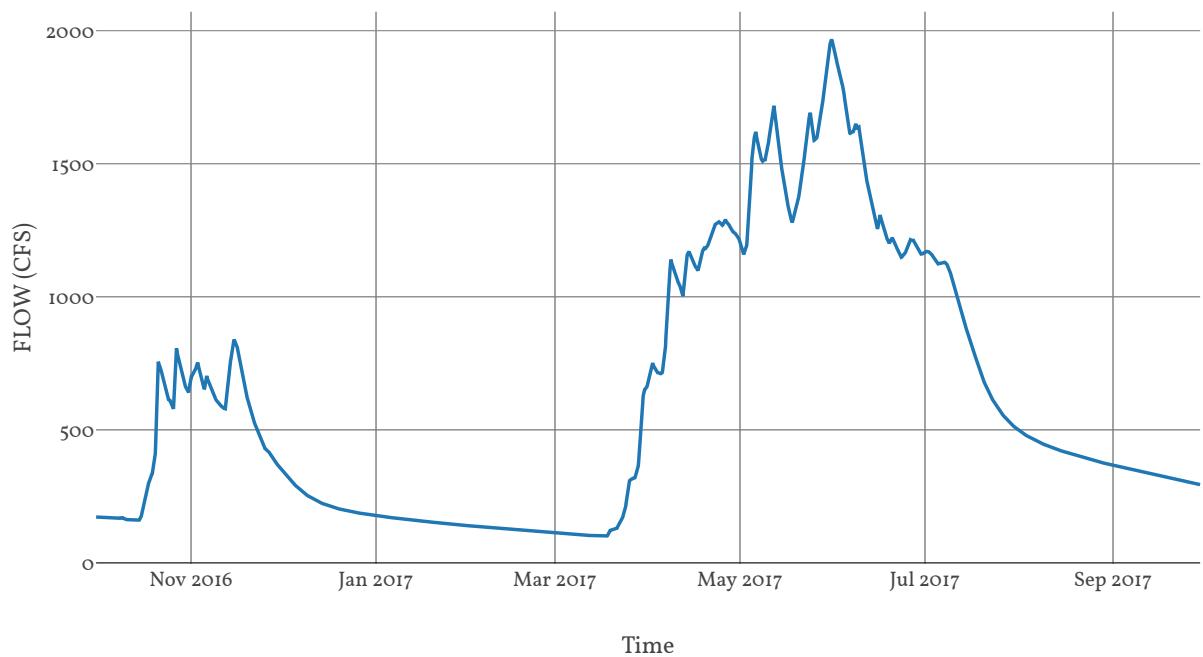
Loss Method : None

Downstream : Wenatchee At Plain

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04 Nvalue Ratio 1 Length 46594 Max Depth Difference 0 Left Mannings N 0.15 Channel Type Eight Point Mannings N 0.04 Cross Section Name WenRv_Ro30 Energy Slope 0 Right Mannings N 0.15

Outflow



Subbasin : WenRv_So30

Area : 424.09

Latitude : 47.87

Longitude : -120.93

Downstream : Wenatchee At Plain

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	1.41
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	9.47
Storage Coefficient	9.47

Baseflow

Method

Linear Reservoir

Baseflow Layer List

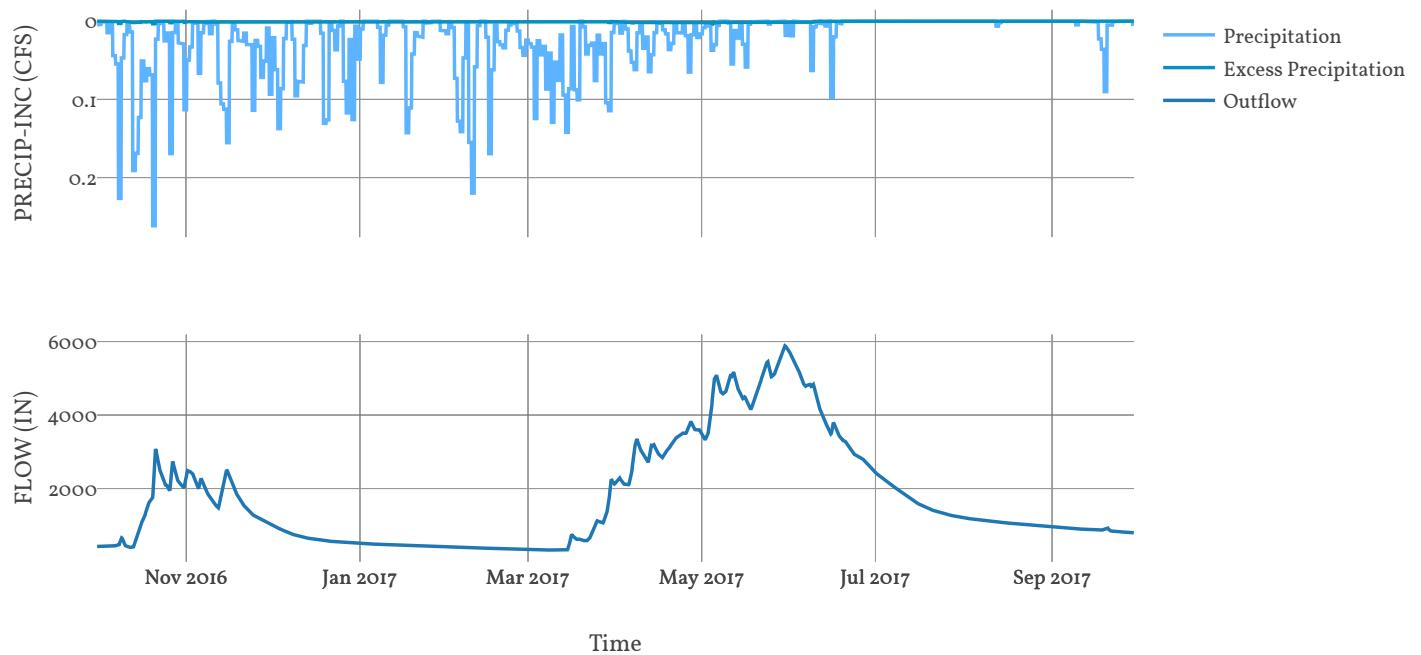
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	189.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	1
	Layer Number	2
	Storage Coefficient	3788
	Number Steps	1

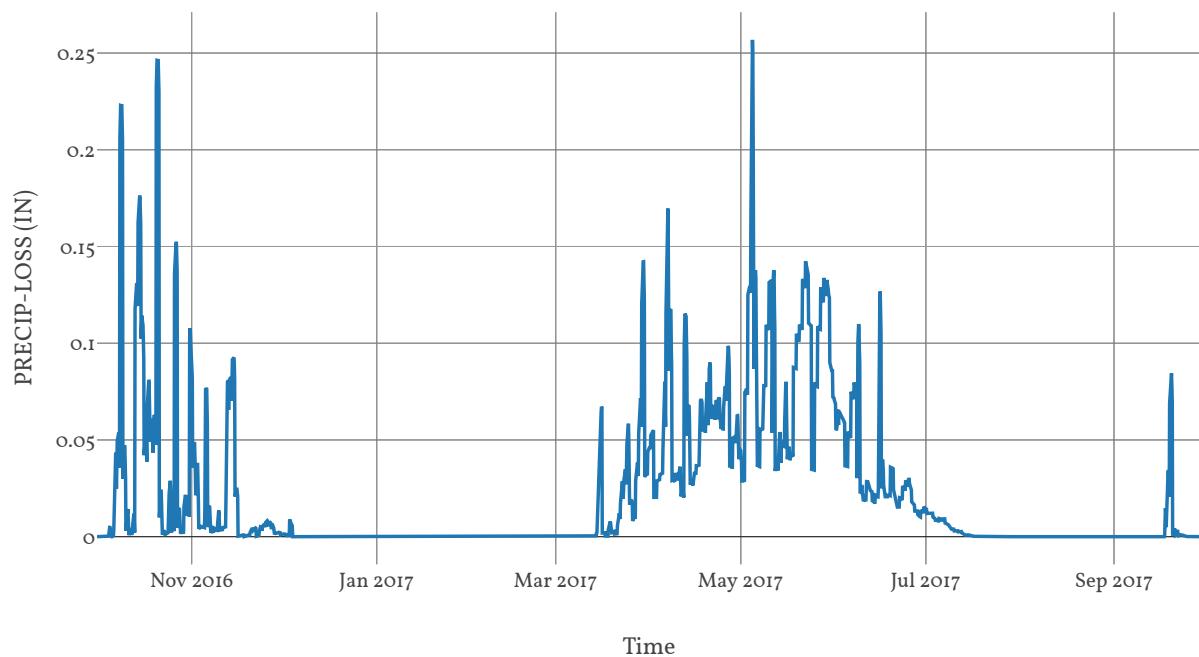
Statistics

Name	Value	Unit
Baseflow Volume	1216179.51	Ac-ft
Precipitation Volume	1691003.03	Ac-ft
Loss Volume	1522134.25	Ac-ft
Excess Volume	21769.04	Ac-ft

Precipitation and Outflow



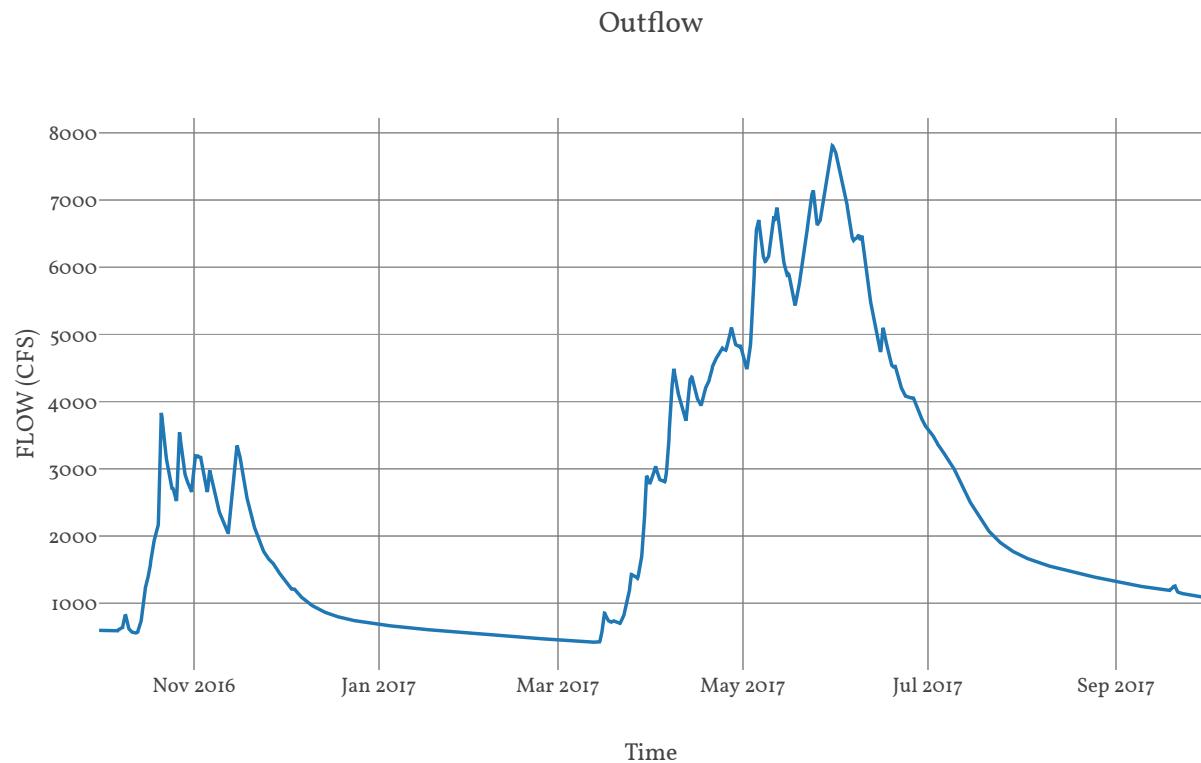
Precipitation Loss



Junction : WenatcheeAtPlain

Observed Hydrograph : Wenatchee river at plain

Downstream : WenRv_Ro25



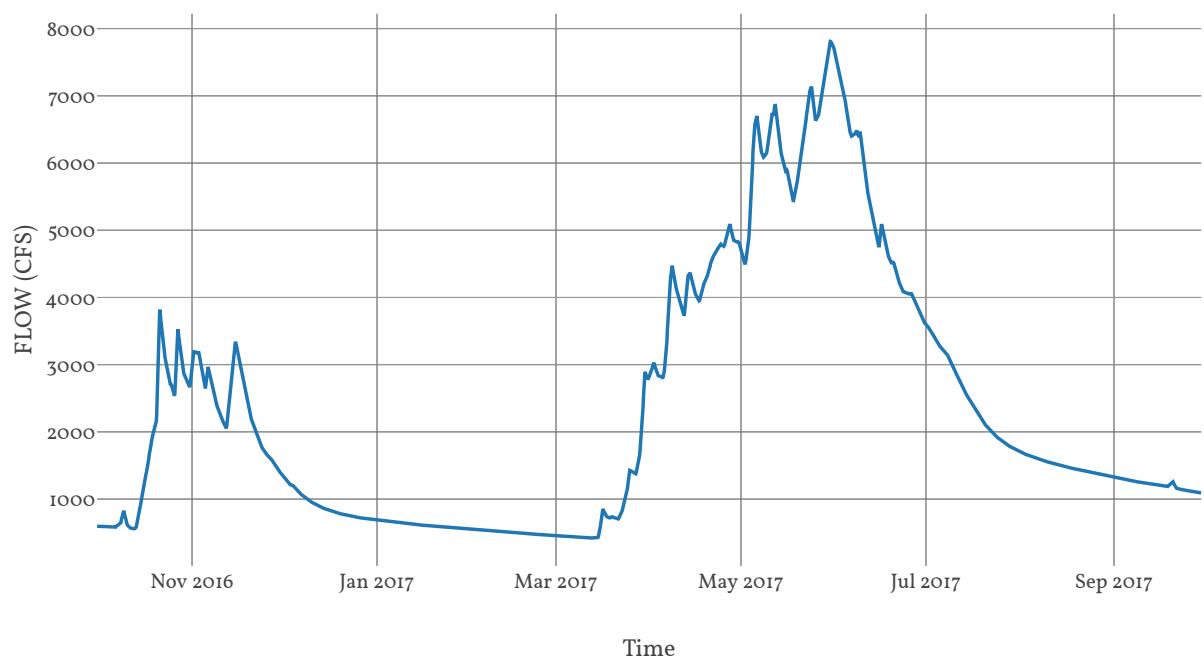
Reach : WenRv_Ro25

Loss Method : None

Downstream : IcicleCk_CF

Route		
Space Time Method		Auto Dx Dt
Method		Muskingum Cunge
Maximum Depth Iterations		20
Index Parameter Type		Index Flow
Initial Variable		Combined Inflow
Index Flow		20000
Channel Type		Eight Point
Maximum Route Step Iterations		30
Channel	Channel Mannings N	0.04
	Nvalue Ratio	1
	Length	107980
	Max Depth Difference	0
	Left Mannings N	0.15
	Channel Type	Eight Point
	Mannings N	0.04
	Cross Section Name	WenRv_Ro25
	Energy Slope	0.01
	Right Mannings N	0.15

Outflow



Subbasin : IcicleCk_SoI0

Area : 192.88

Latitude : 47.58

Longitude : -120.94

Downstream : Icicle Nr Leavenworth

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.73
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	6.85
Storage Coefficient	6.85

Baseflow

Method

Linear Reservoir

Baseflow Layer List

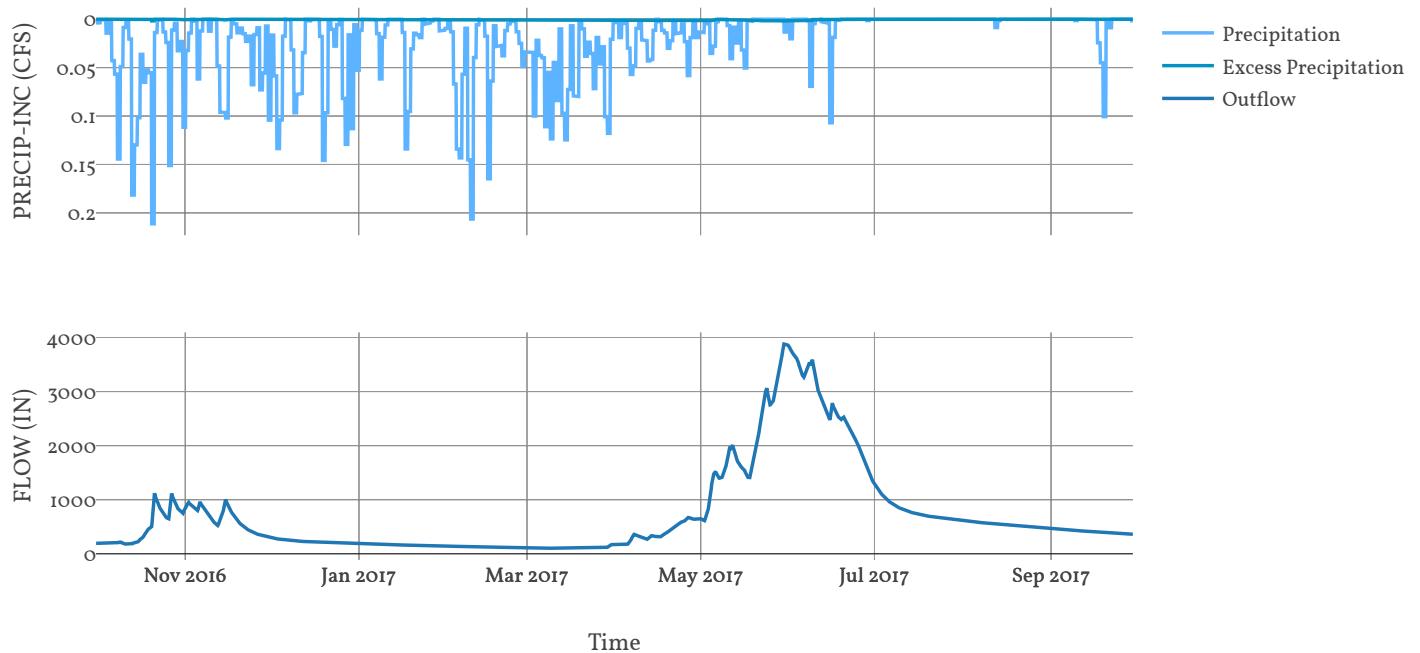
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	137
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	1
	Layer Number	2
	Storage Coefficient	2740
	Number Steps	1

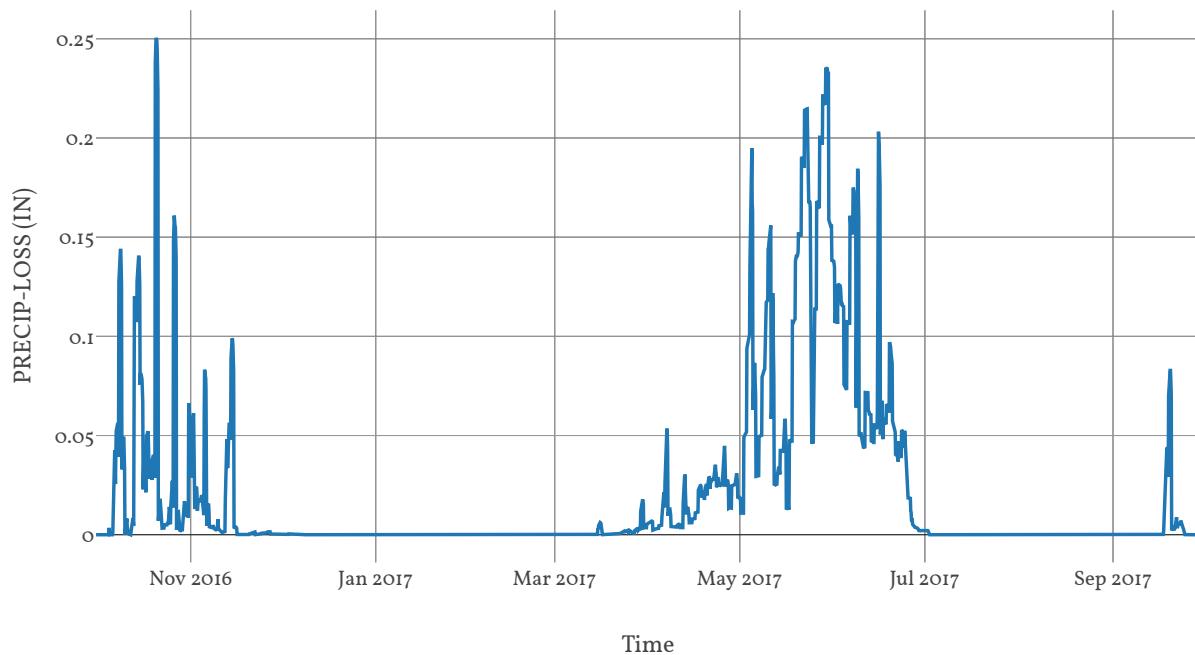
Statistics

Name	Value	Unit
Baseflow Volume	512933.52	Ac-ft
Precipitation Volume	704349.86	Ac-ft
Loss Volume	643144.21	Ac-ft
Excess Volume	4729.48	Ac-ft

Precipitation and Outflow



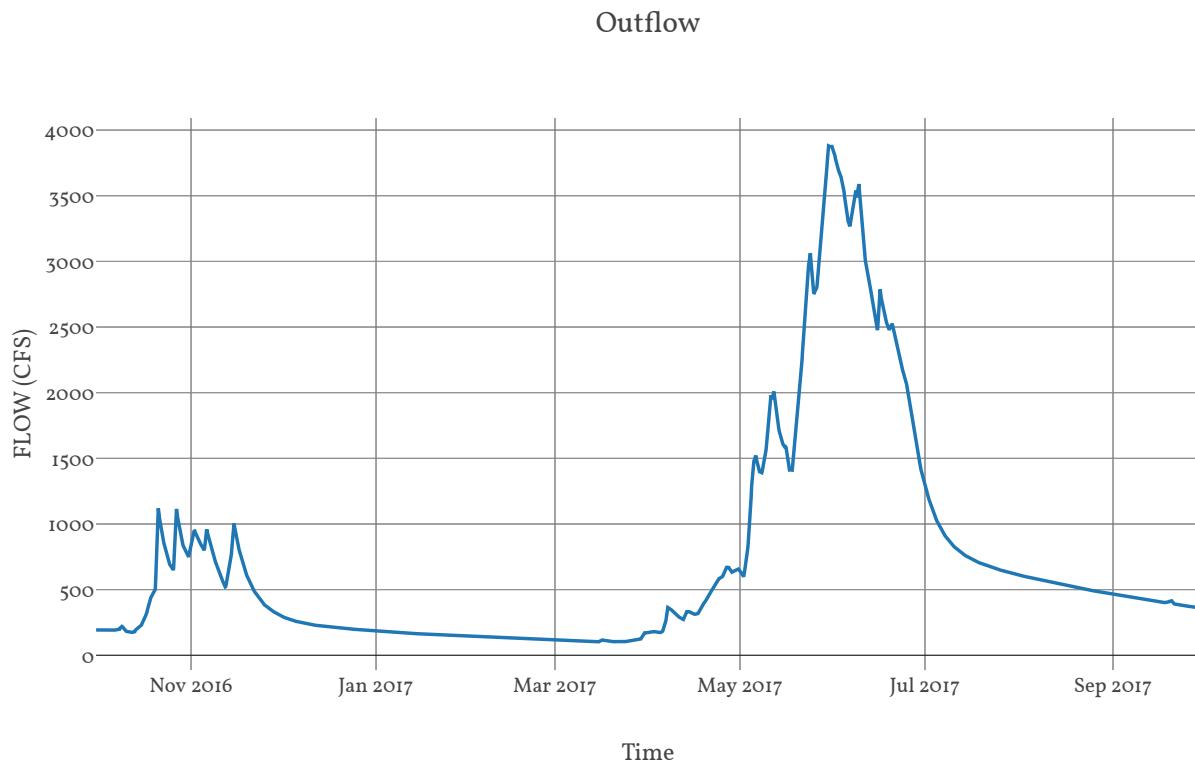
Precipitation Loss



Junction : IcicleNrLeavenworth

Observed Hydrograph : Icicle creek above snow cree

Downstream : IcicleCk_Roo5



Reach : IcicleCk_Roo5

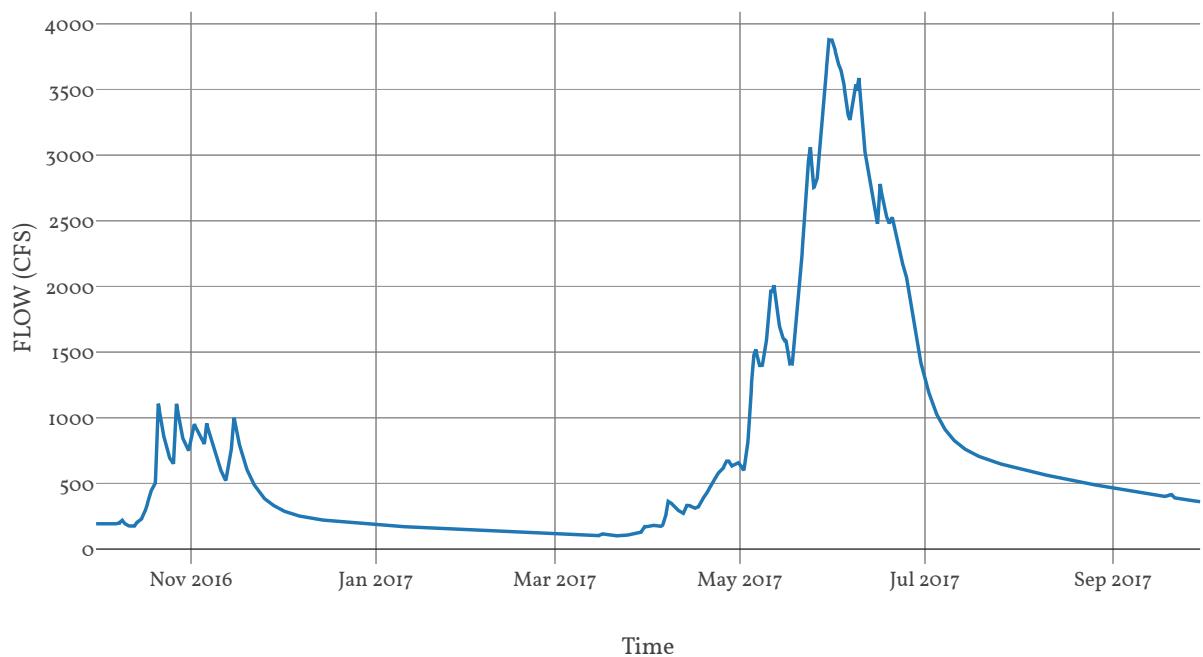
Loss Method : None

Downstream : IcicleCk_CF

Route

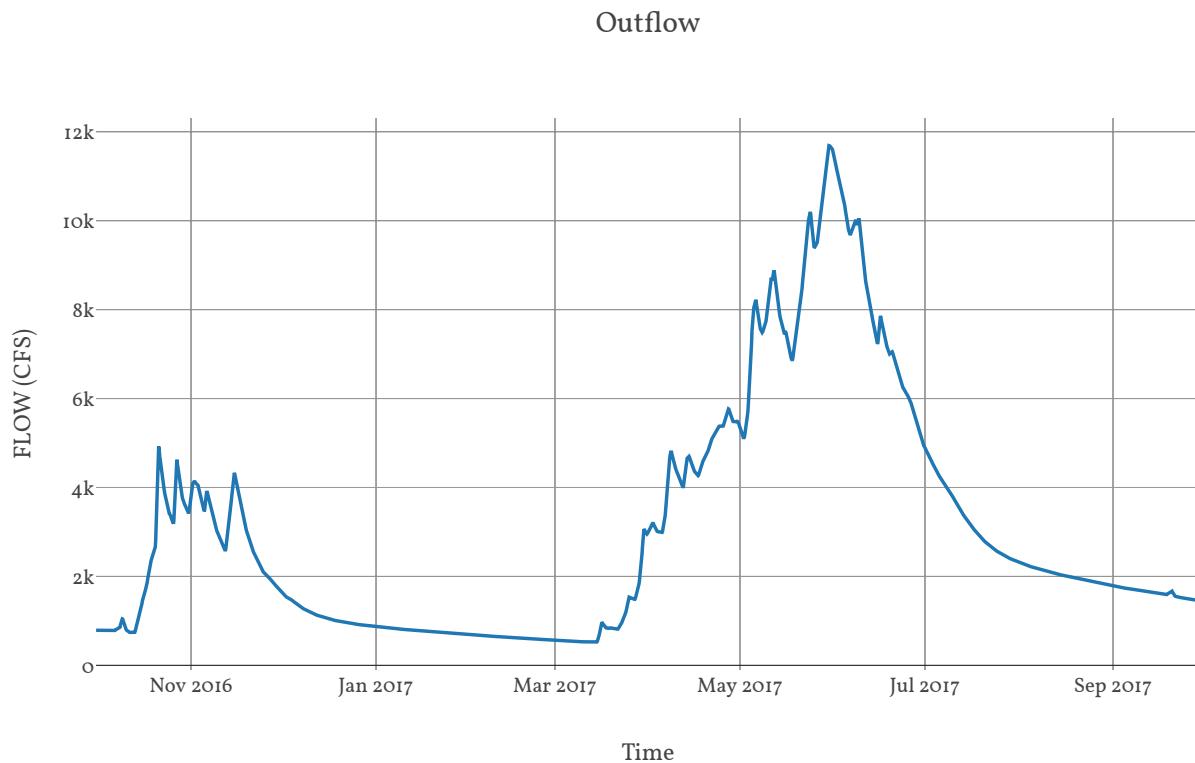
Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 30970
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name IcicleCk_Roo5
	Energy Slope 0.01
	Right Mannings N 0.15

Outflow



Junction : IcicleCk_CF

Downstream : WenRv_Ro20



Reach : WenRv_Ro20

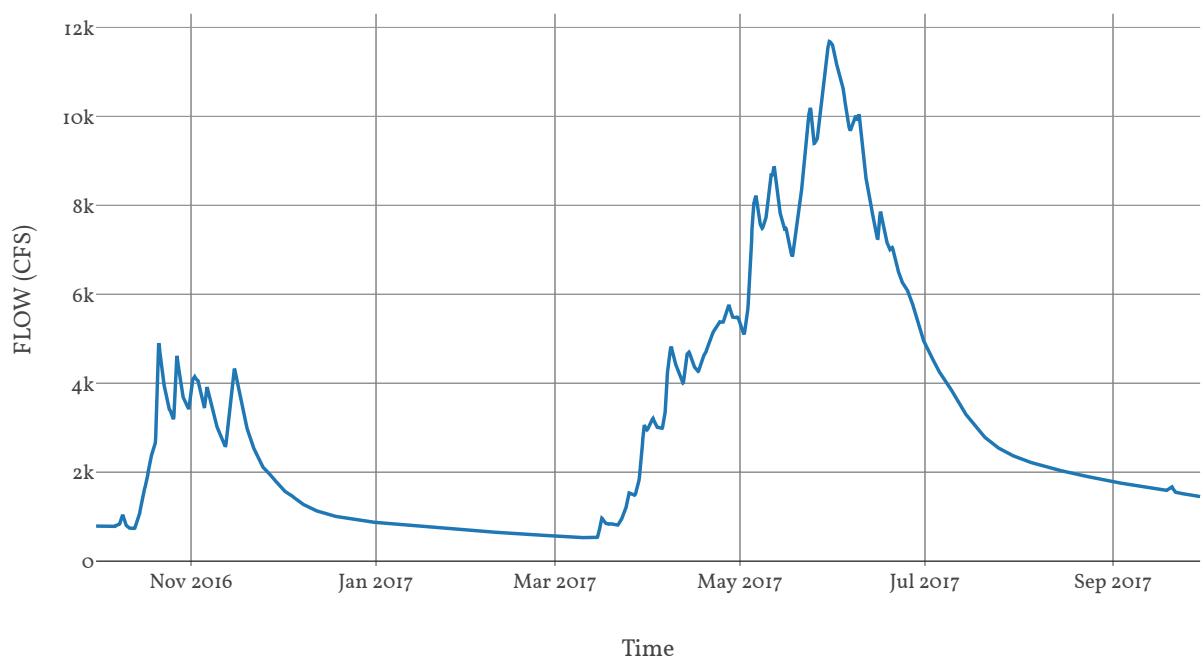
Loss Method : None

Downstream : Wenatchee Nr Peshastin

Route

Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04
	Nvalue Ratio 1
	Length 22604
	Max Depth Difference 0
	Left Mannings N 0.15
	Channel Type Eight Point
	Mannings N 0.04
	Cross Section Name WenRv_Ro20
	Energy Slope 0
	Right Mannings N 0.15

Outflow



Subbasin : WenRv_So20

Area : 210.93

Latitude : 47.66

Longitude : -120.7

Downstream : Wenatchee Nr Peshastin

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.42
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	6.16
Storage Coefficient	6.16

Baseflow

Method

Linear Reservoir

Baseflow Layer List

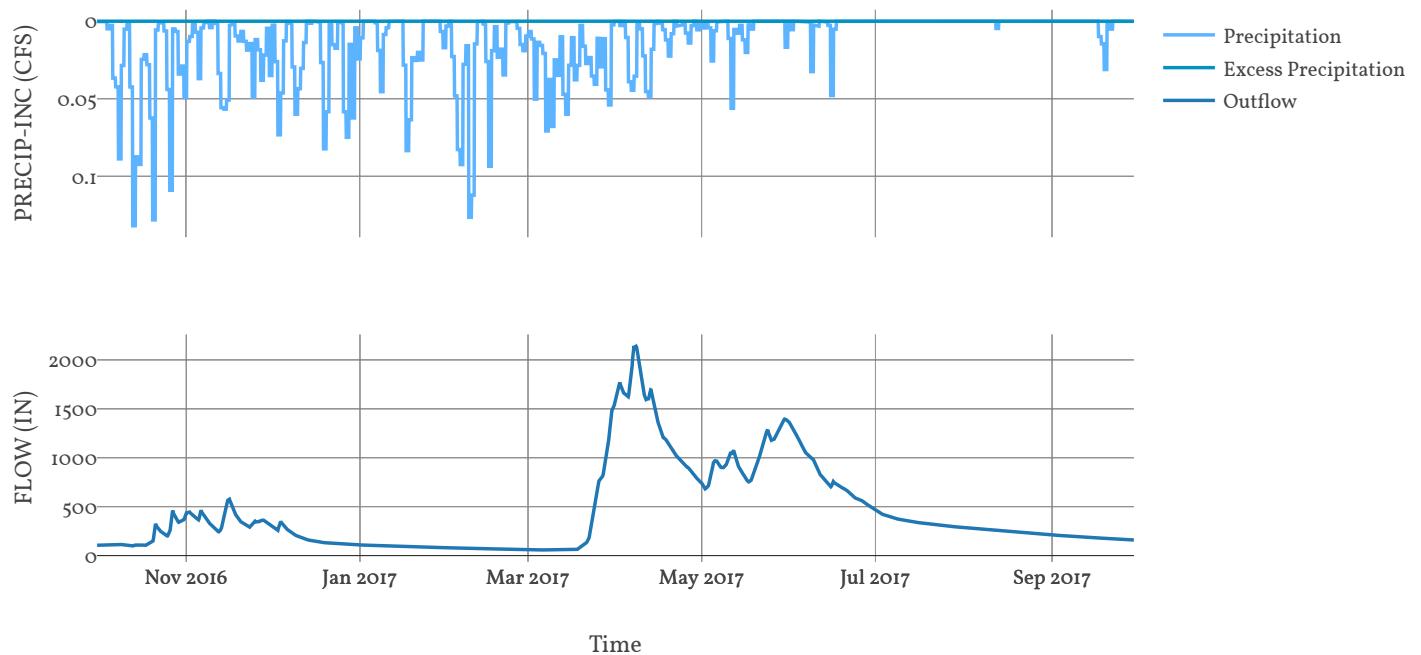
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	123.2
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.5
	Layer Number	2
	Storage Coefficient	2464
	Number Steps	1

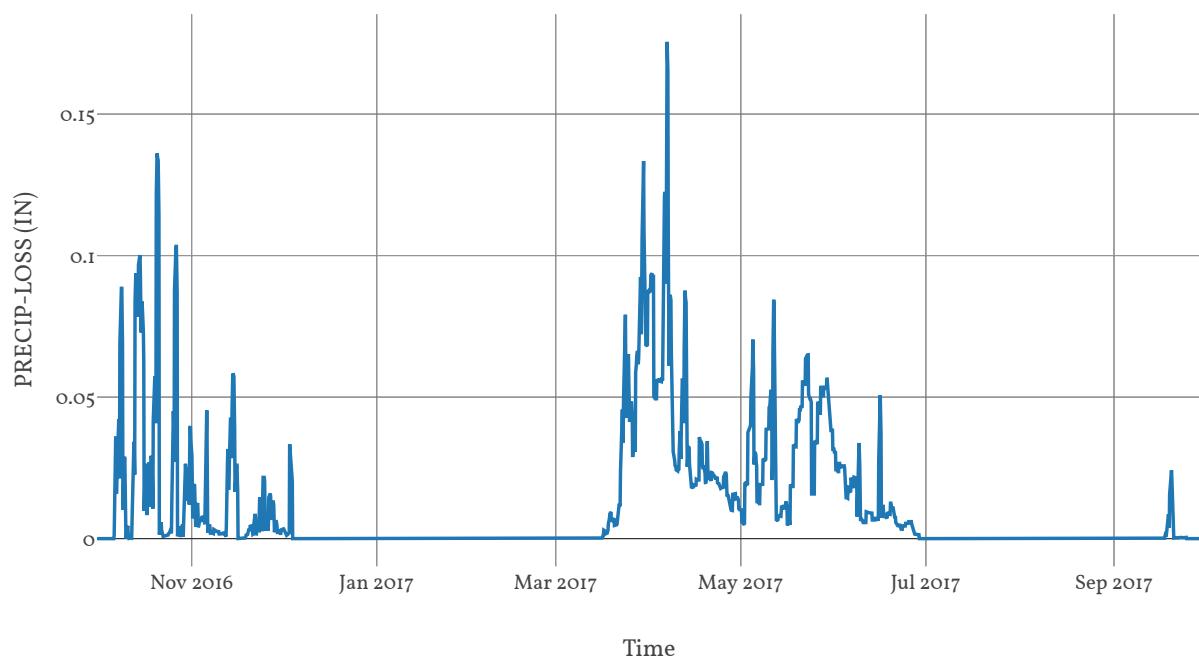
Statistics

Name	Value	Unit
Baseflow Volume	309094.53	Ac-ft
Precipitation Volume	470528.84	Ac-ft
Loss Volume	402244.76	Ac-ft
Excess Volume	1696.55	Ac-ft

Precipitation and Outflow

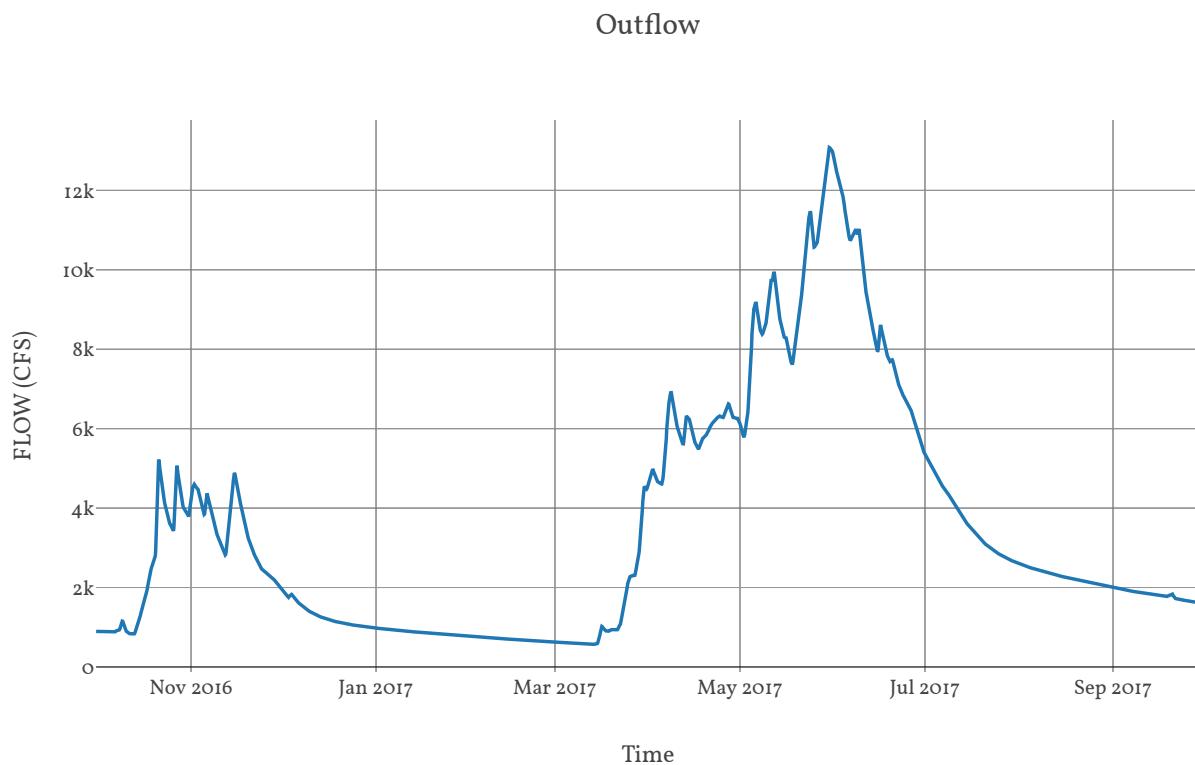


Precipitation Loss



Junction : WenatcheeNrPeshastin

Observed Hydrograph : Wenatchee river at peshastin
Downstream : WenRv_R015



Reach : WenRv_Ro15

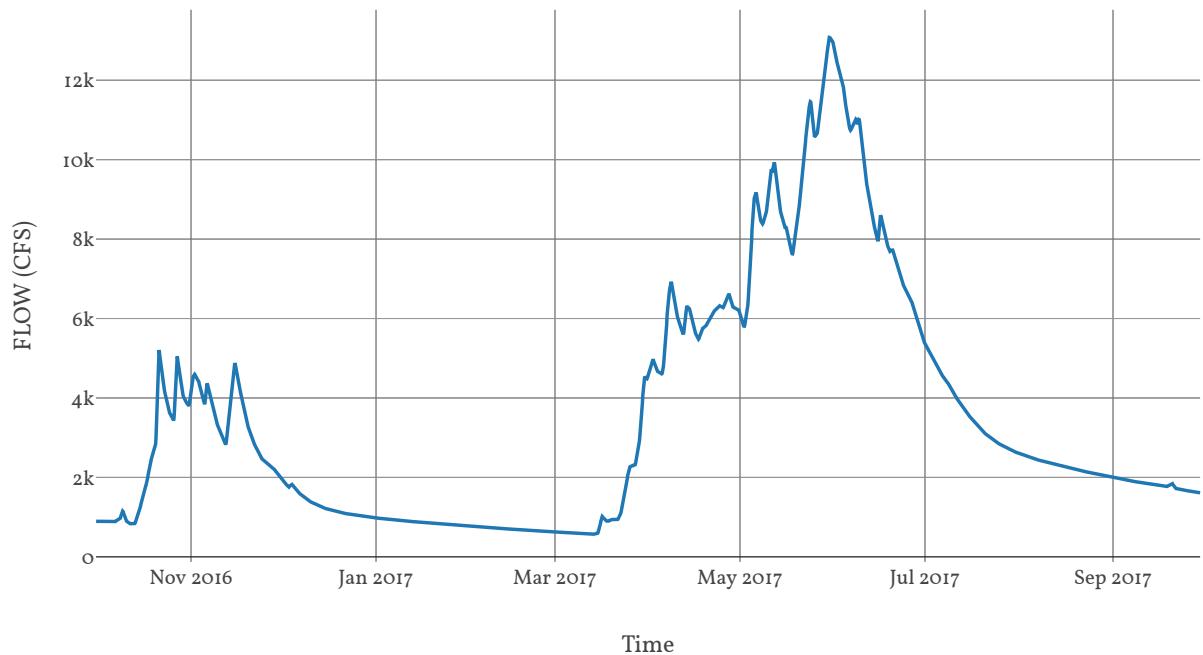
Loss Method : None

Downstream : Wenatchee Nr Monitor

Route

Space Time Method	Auto Dx Dt																				
Method	Muskingum Cunge																				
Maximum Depth Iterations	20																				
Index Parameter Type	Index Flow																				
Initial Variable	Combined Inflow																				
Index Flow	20000																				
Channel Type	Eight Point																				
Maximum Route Step Iterations	30																				
Channel	<table><tr><td>Channel Mannings N</td><td>0.04</td></tr><tr><td>Nvalue Ratio</td><td>I</td></tr><tr><td>Length</td><td>77042</td></tr><tr><td>Max Depth Difference</td><td>0</td></tr><tr><td>Left Mannings N</td><td>0.15</td></tr><tr><td>Channel Type</td><td>Eight Point</td></tr><tr><td>Mannings N</td><td>0.04</td></tr><tr><td>Cross Section Name</td><td>WenRv_Ro15</td></tr><tr><td>Energy Slope</td><td>0</td></tr><tr><td>Right Mannings N</td><td>0.15</td></tr></table>	Channel Mannings N	0.04	Nvalue Ratio	I	Length	77042	Max Depth Difference	0	Left Mannings N	0.15	Channel Type	Eight Point	Mannings N	0.04	Cross Section Name	WenRv_Ro15	Energy Slope	0	Right Mannings N	0.15
Channel Mannings N	0.04																				
Nvalue Ratio	I																				
Length	77042																				
Max Depth Difference	0																				
Left Mannings N	0.15																				
Channel Type	Eight Point																				
Mannings N	0.04																				
Cross Section Name	WenRv_Ro15																				
Energy Slope	0																				
Right Mannings N	0.15																				

Outflow



Subbasin : WenRv_SoI0

Area : 302

Latitude : 47.46

Longitude : -120.59

Downstream : Wenatchee Nr Monitor

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.03
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	8.92
Storage Coefficient	8.92

Baseflow

Method

Linear Reservoir

Baseflow Layer List

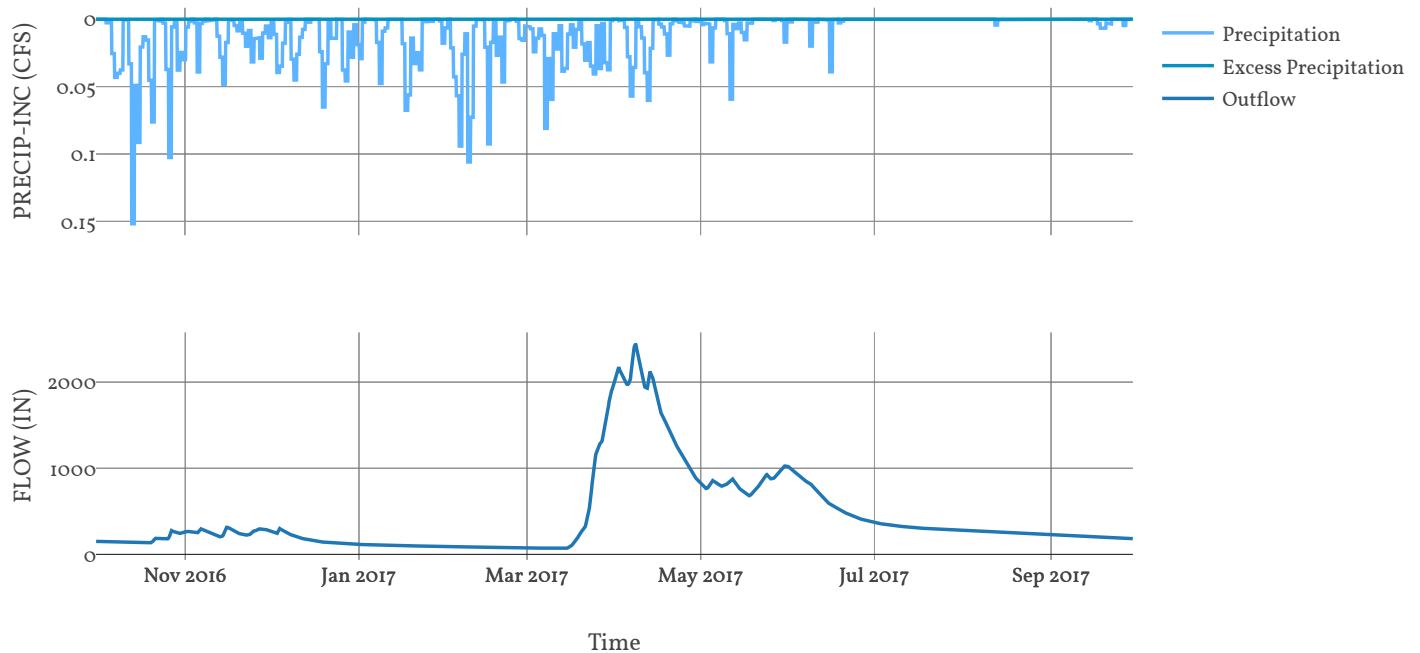
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	178.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.5
	Layer Number	2
	Storage Coefficient	3568
	Number Steps	1

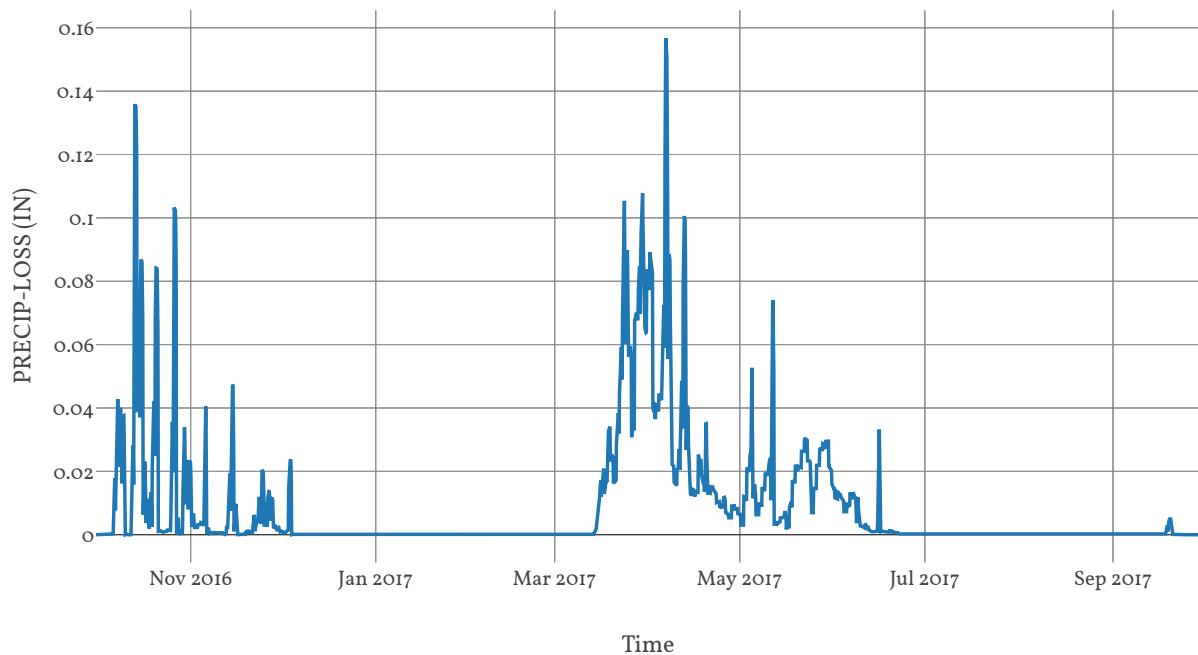
Statistics

Name	Value	Unit
Baseflow Volume	310560.86	Ac-ft
Precipitation Volume	531035.18	Ac-ft
Loss Volume	435656.58	Ac-ft
Excess Volume	130.74	Ac-ft

Precipitation and Outflow



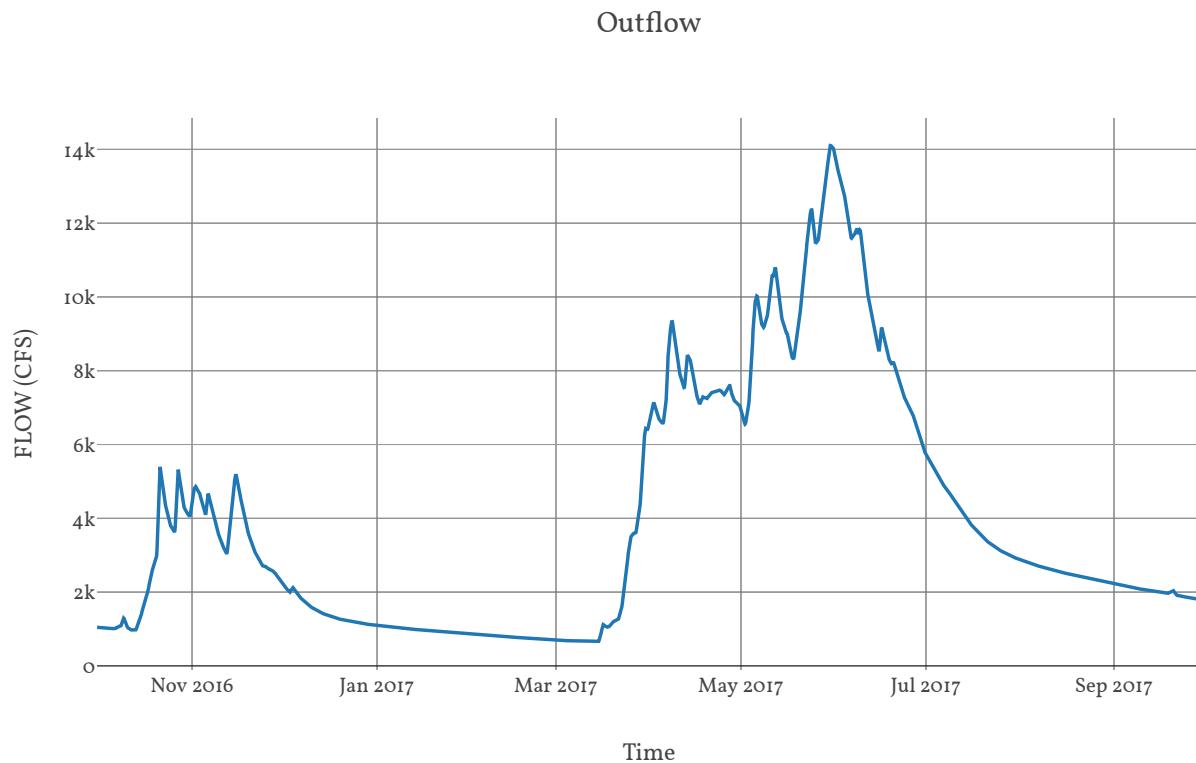
Precipitation Loss



Junction : WenatcheeNrMonitor

Observed Hydrograph : Wenatchee river at monitor

Downstream : WenRv_RoIO



Reach : WenRv_Ro10

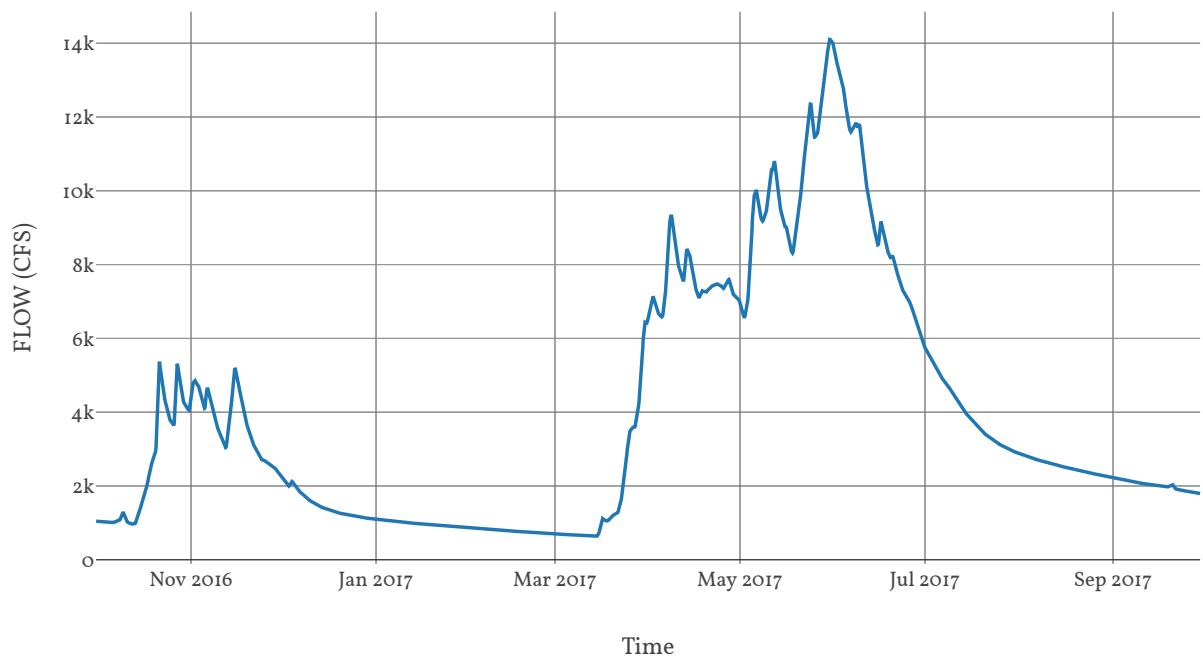
Loss Method : None

Downstream : WenatcheeRv_CF

Route

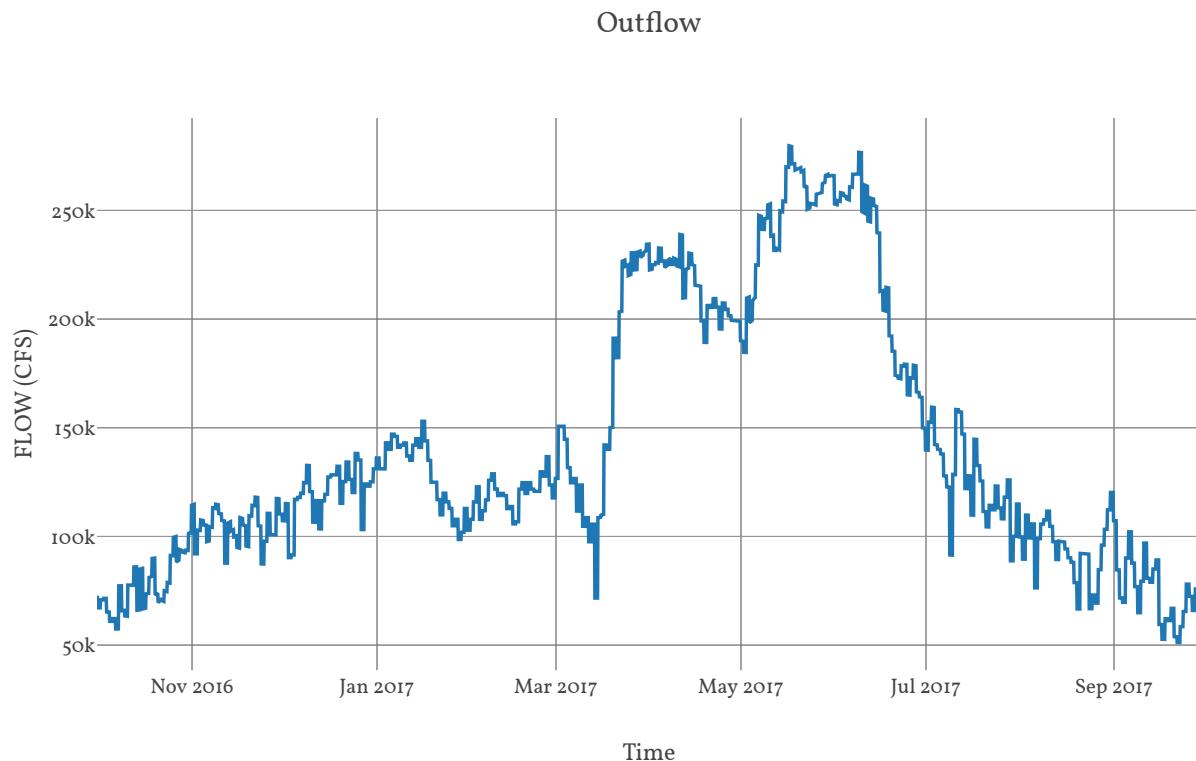
Space Time Method	Auto Dx Dt
Method	Muskingum Cunge
Maximum Depth Iterations	20
Index Parameter Type	Index Flow
Initial Variable	Combined Inflow
Index Flow	20000
Channel Type	Eight Point
Maximum Route Step Iterations	30
Channel	Channel Mannings N 0.04 Nvalue Ratio 1 Length 35878 Max Depth Difference 0 Left Mannings N 0.15 Channel Type Eight Point Mannings N 0.04 Cross Section Name WenRv_Ro10 Energy Slope 0 Right Mannings N 0.15

Outflow



Junction : WenatcheeRv_CF

Downstream : MidColumbia_R040



Reach : MidColumbia_Ro40

Loss Method : None

Downstream : RockIsland_IN

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : MidColumbia_So40

Area : 301

Latitude : 47.42

Longitude : -120.25

Downstream : RockIsland_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.29
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	7.68
Storage Coefficient	7.68

Baseflow

Method

Linear Reservoir

Baseflow Layer List

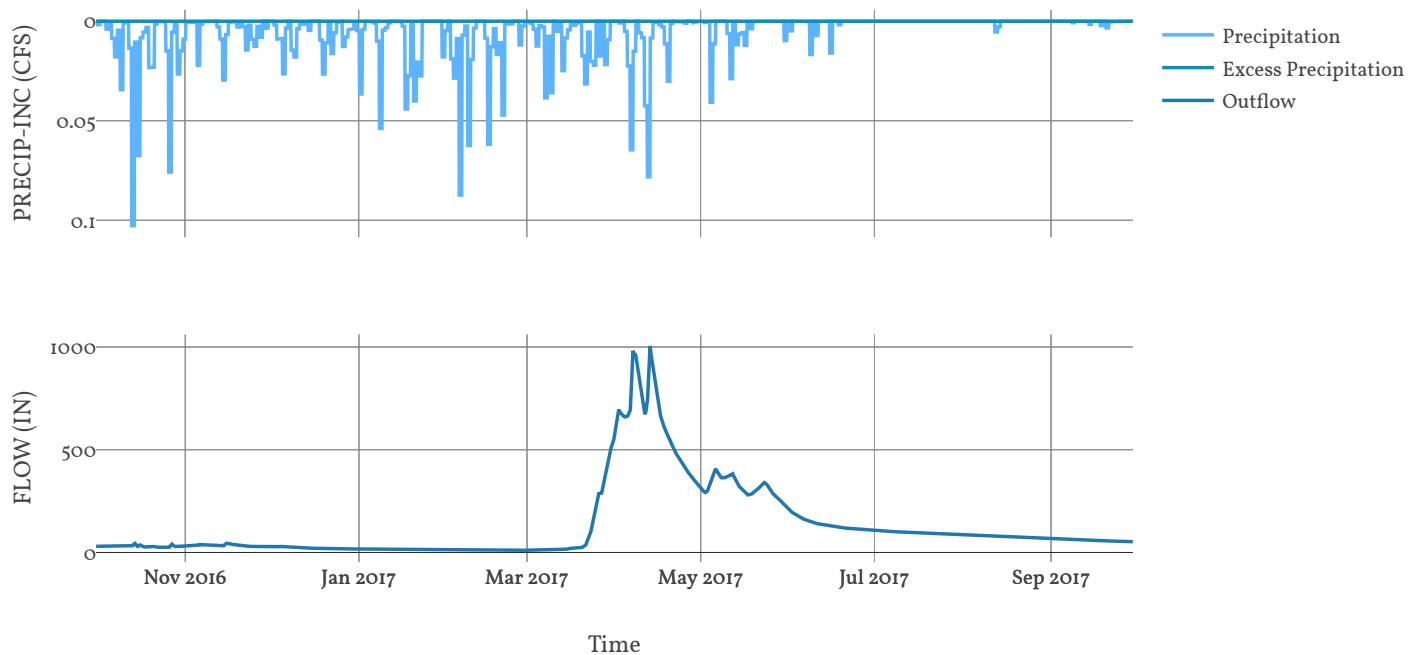
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	153.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	3072
	Number Steps	1

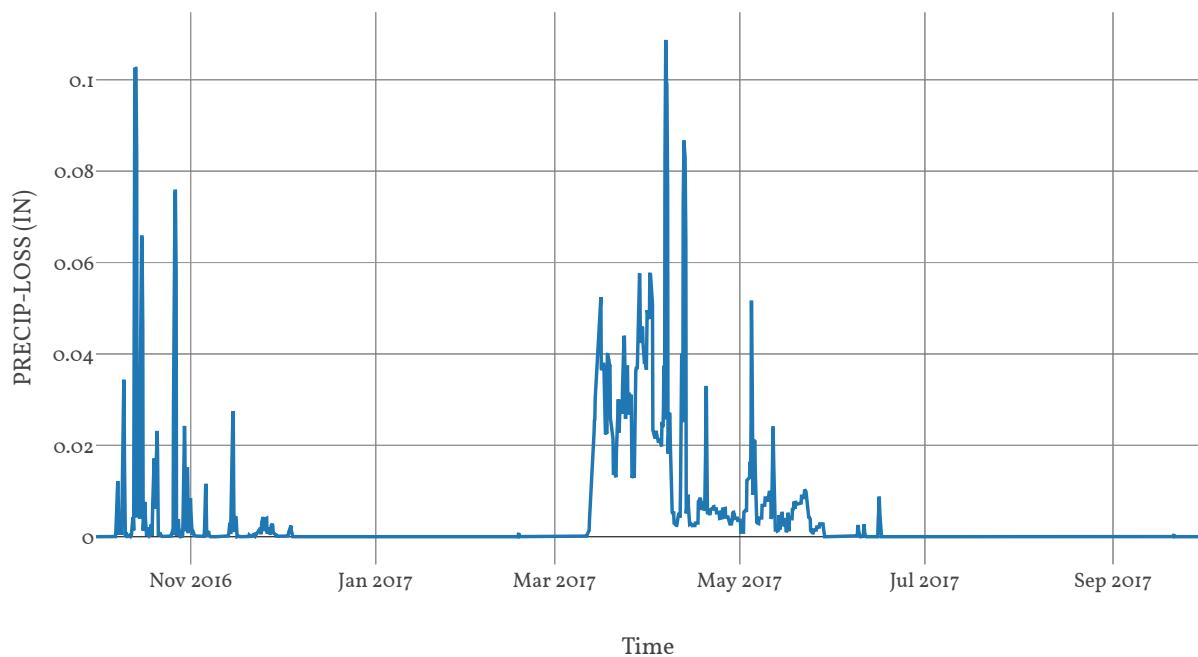
Statistics

Name	Value	Unit
Baseflow Volume	91241.22	Ac-ft
Precipitation Volume	300547.86	Ac-ft
Loss Volume	214201.4	Ac-ft
Excess Volume	622.99	Ac-ft

Precipitation and Outflow



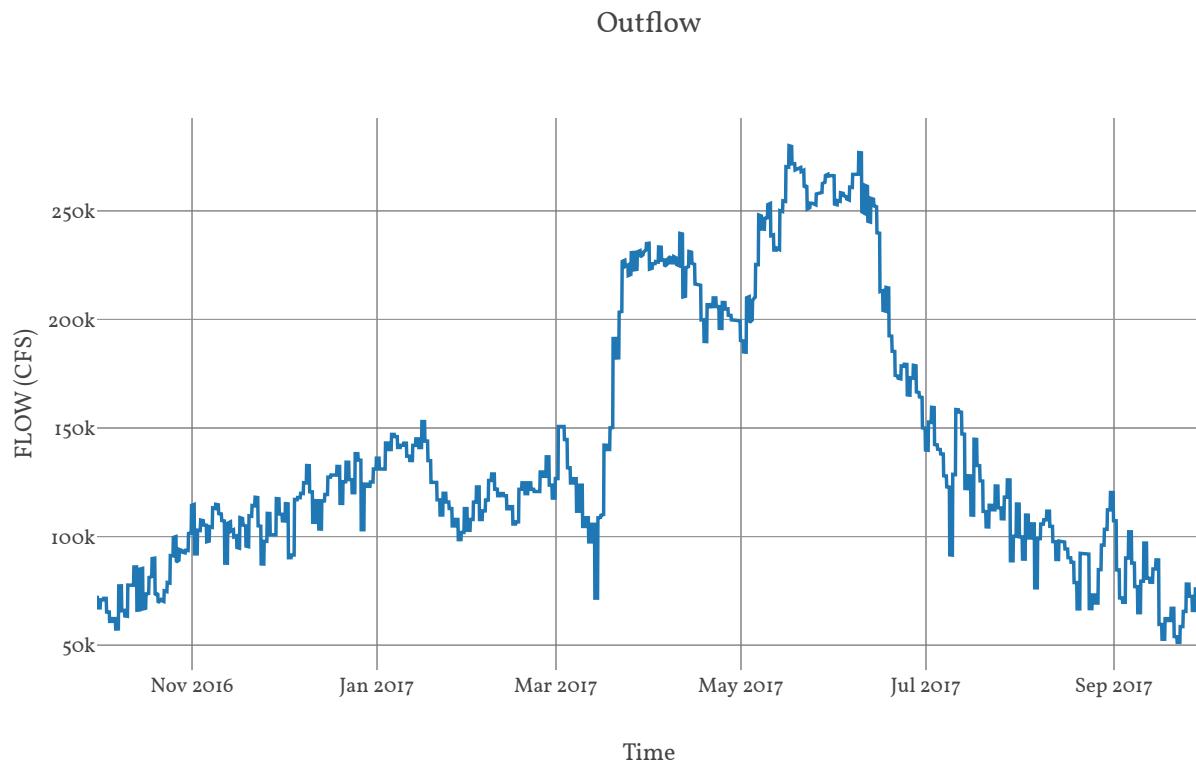
Precipitation Loss



Junction : RockIsland_IN

Observed Hydrograph : Rock Island In

Downstream : Rock Island

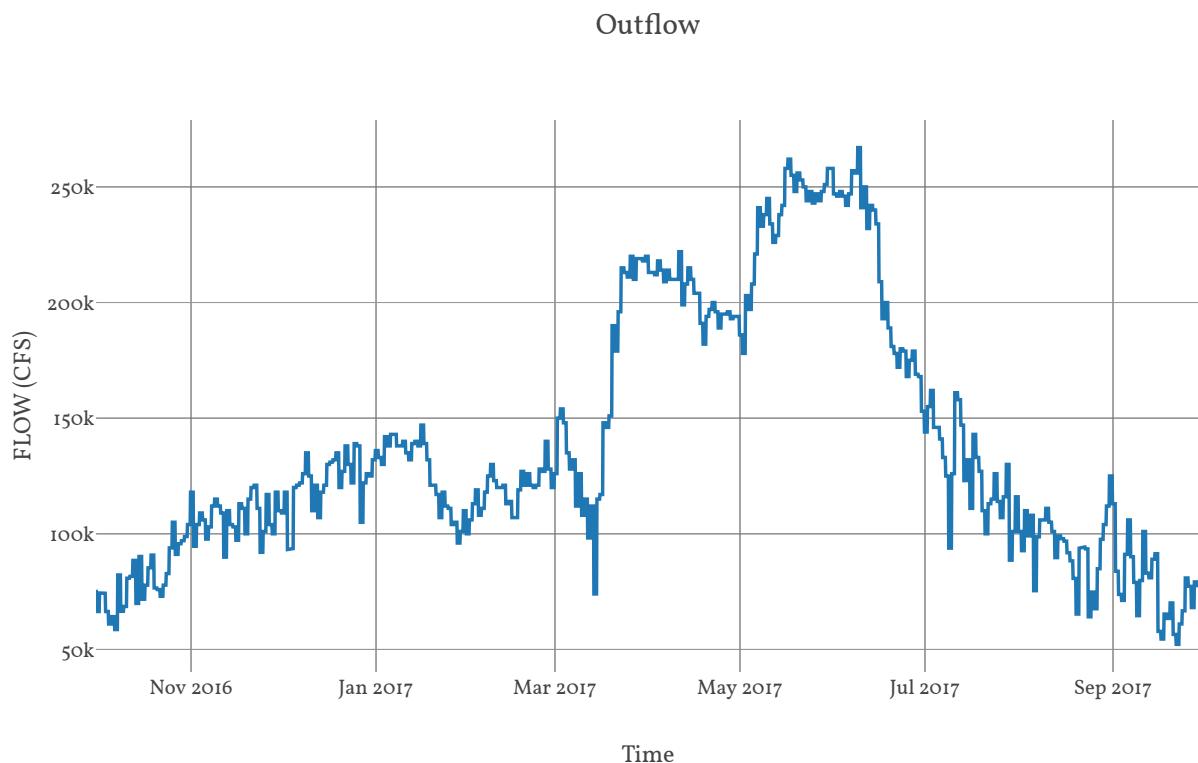


Reservoir : RockIsland

Quality Method : Unspecified

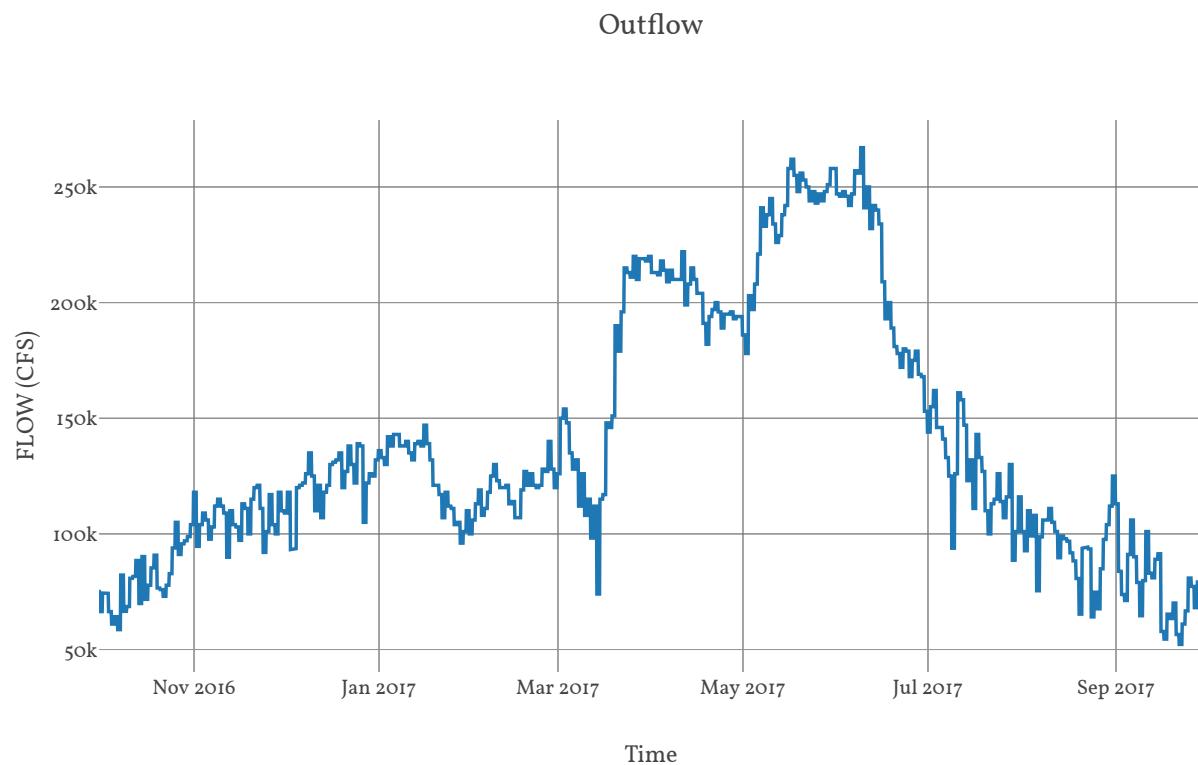
Method : Specified Outflow

Downstream : RockIsland_OUT



Junction : RockIsland_OUT

Downstream : MidColumbia_R035



Reach : MidColumbia_Ro35

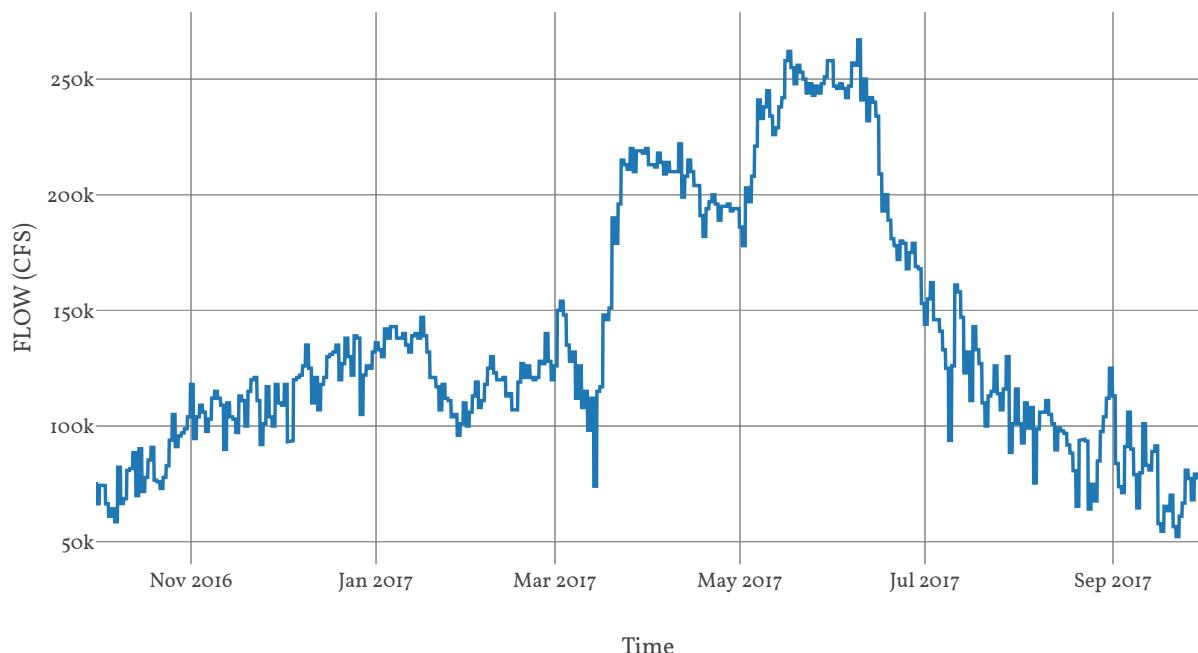
Loss Method : None

Downstream : DouglasCk_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : DouglasCk_SoIO

Area : 930.37

Latitude : 47.61

Longitude : -119.73

Downstream : DouglasCk_CF

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.26
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	15.17
Storage Coefficient	15.17

Baseflow

Method

Linear Reservoir

Baseflow Layer List

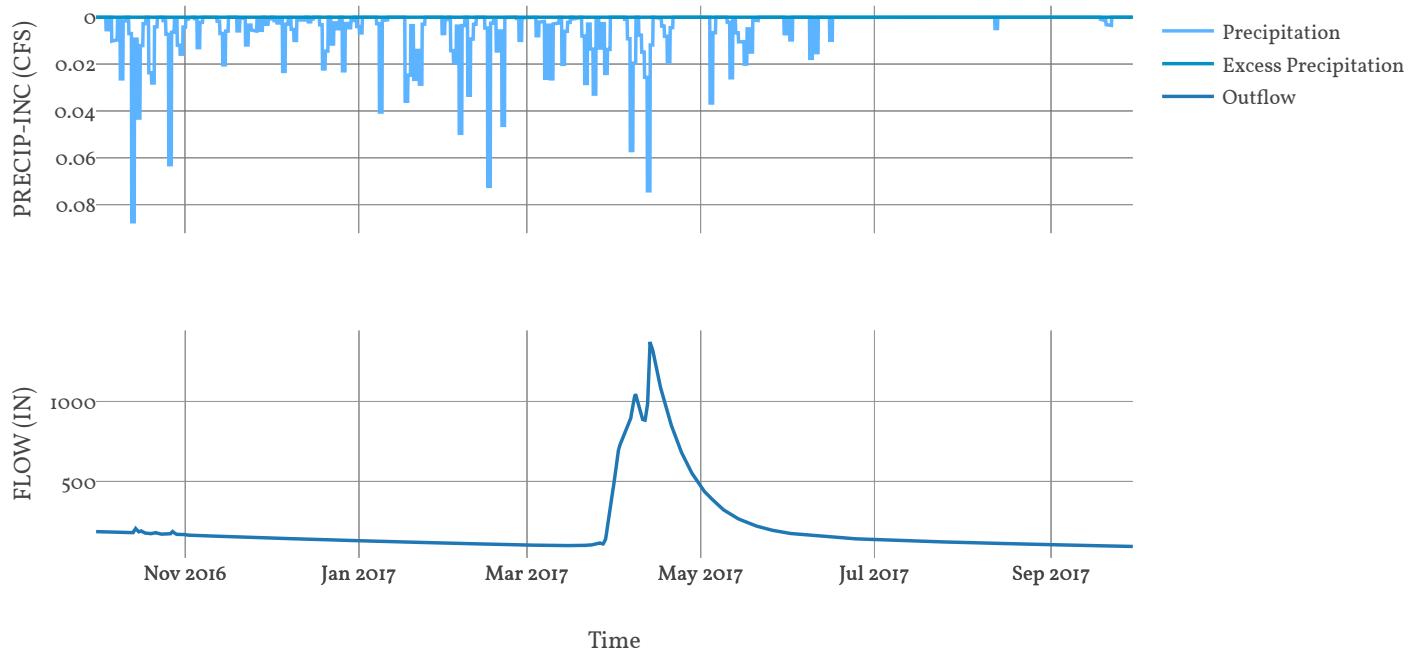
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	303.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.2
	Layer Number	2
	Storage Coefficient	6068
	Number Steps	1

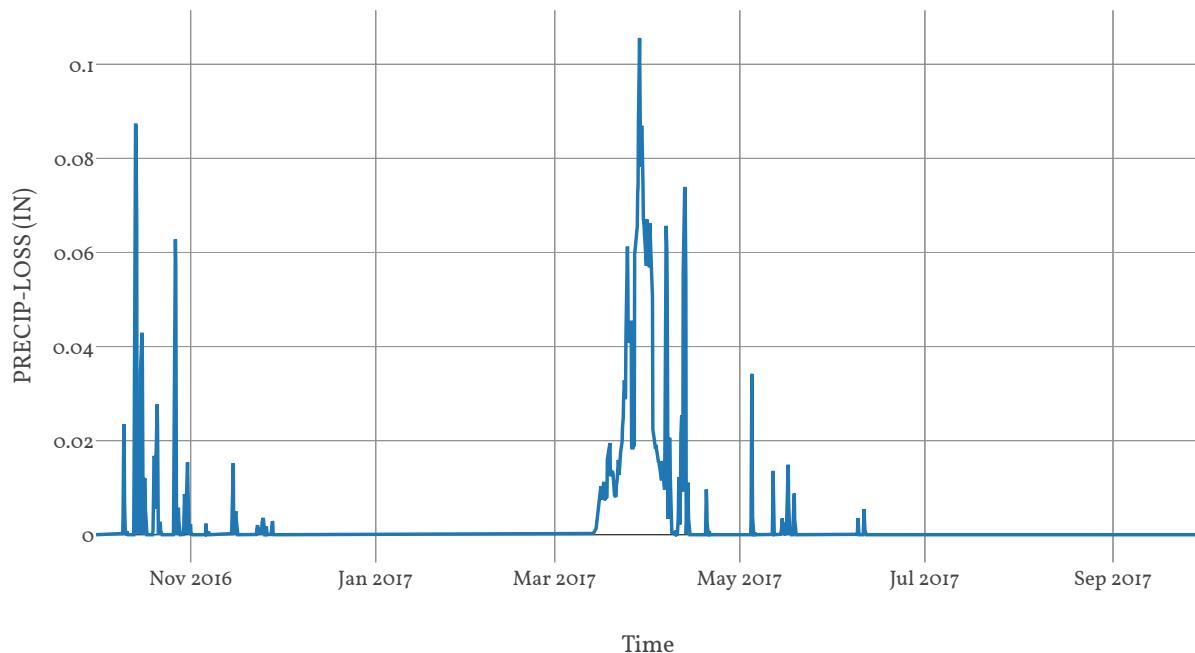
Statistics

Name	Value	Unit
Baseflow Volume	145662.05	Ac-ft
Precipitation Volume	727124.28	Ac-ft
Loss Volume	452952.95	Ac-ft
Excess Volume	1180.75	Ac-ft

Precipitation and Outflow

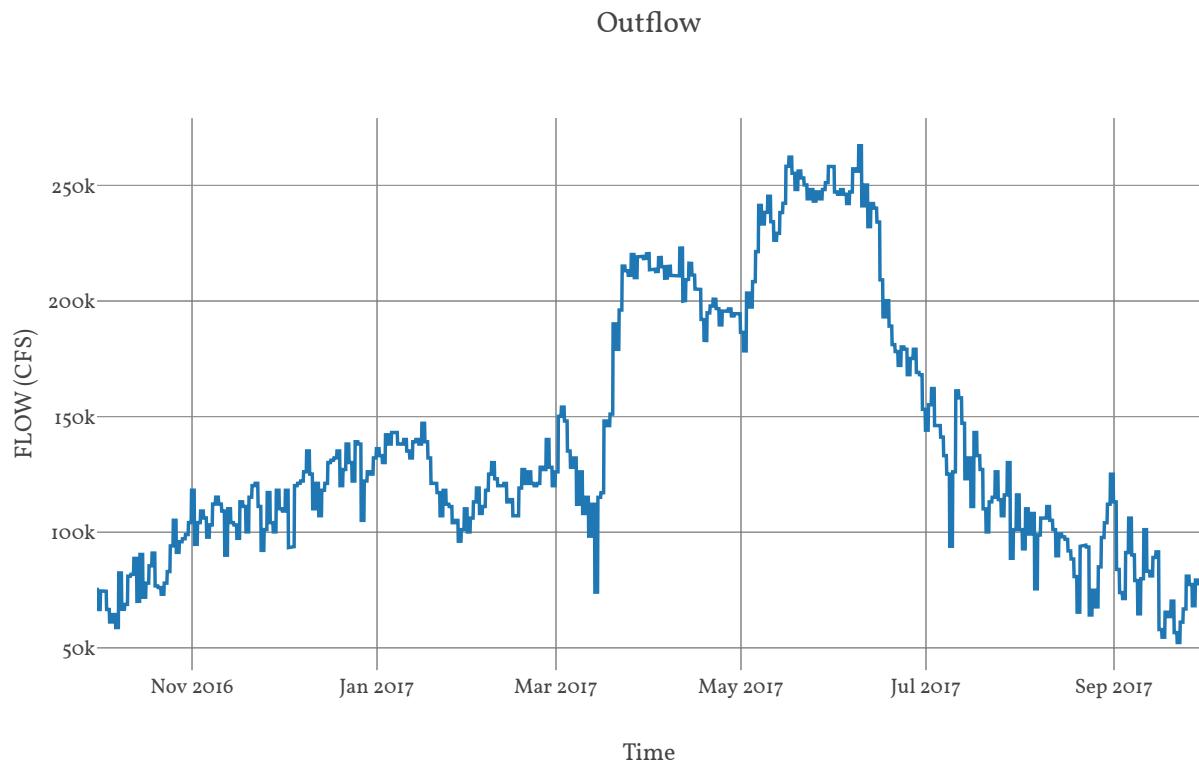


Precipitation Loss



Junction : DouglasCk_CF

Downstream : MidColumbia_R030



Reach : MidColumbia_R030

Loss Method : None

Downstream : Wanapum_IN

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : MidColumbia_So30

Area : 565.3

Latitude : 47.1

Longitude : -120.05

Downstream : Wanapum_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.21
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	9.56
Storage Coefficient	9.56

Baseflow

Method

Linear Reservoir

Baseflow Layer List

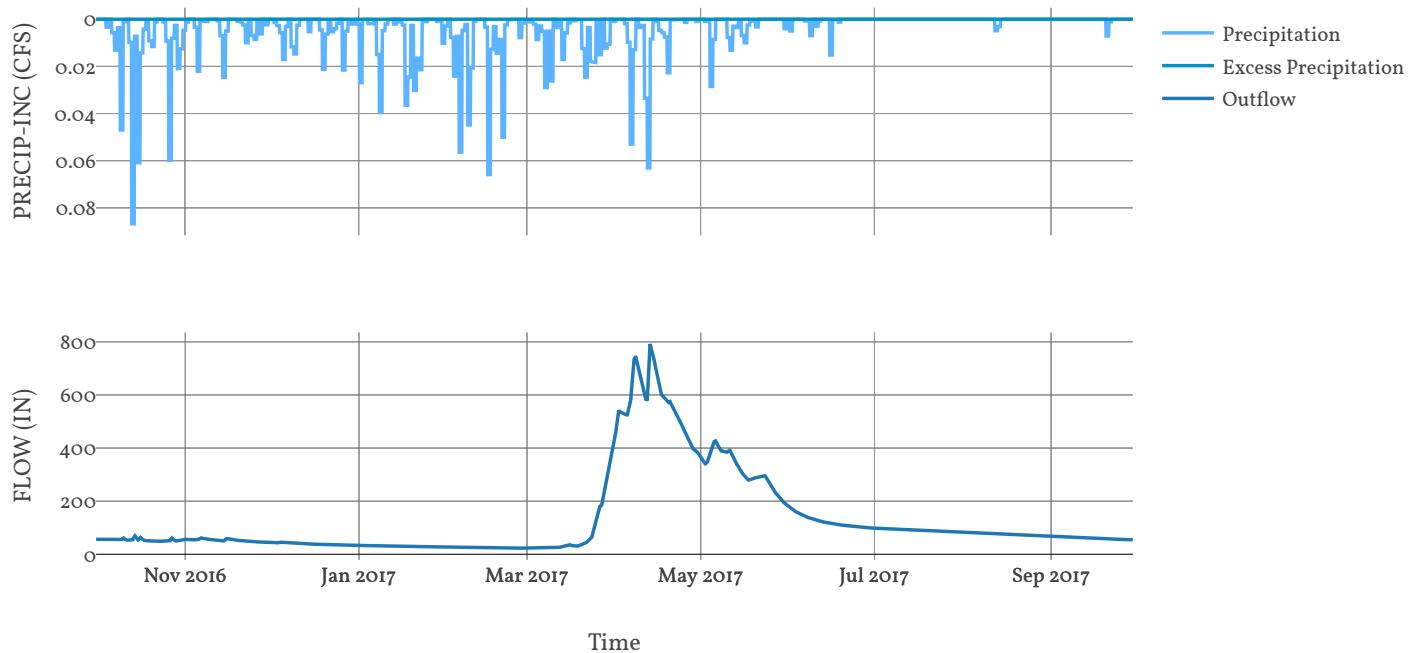
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	191.2
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	3824
	Number Steps	1

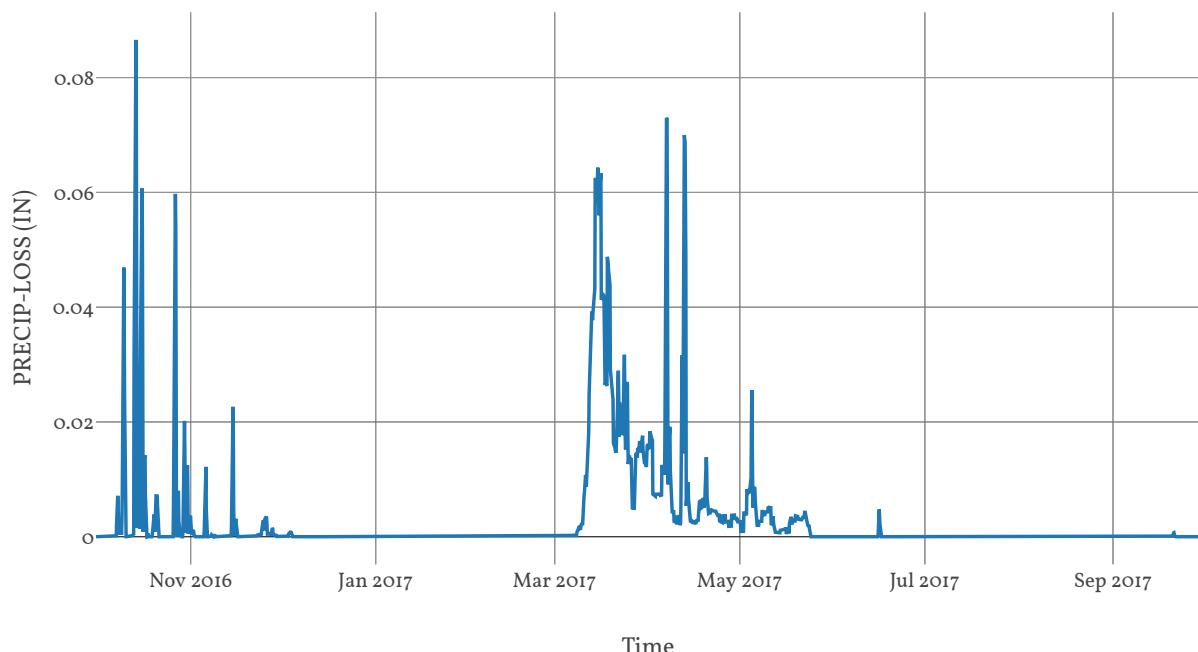
Statistics

Name	Value	Unit
Baseflow Volume	89985.97	Ac-ft
Precipitation Volume	443852.28	Ac-ft
Loss Volume	287628.32	Ac-ft
Excess Volume	605.29	Ac-ft

Precipitation and Outflow



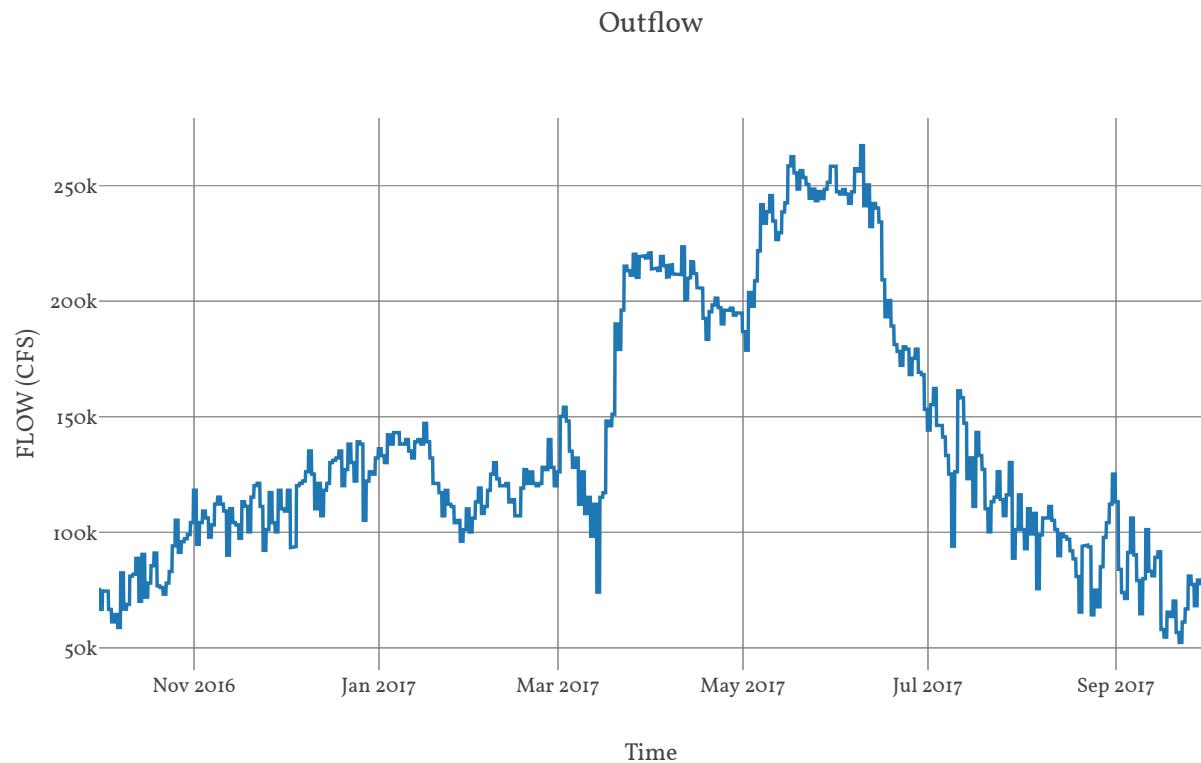
Precipitation Loss



Junction : Wanapum_IN

Observed Hydrograph : Wanapum In

Downstream : Wanapum

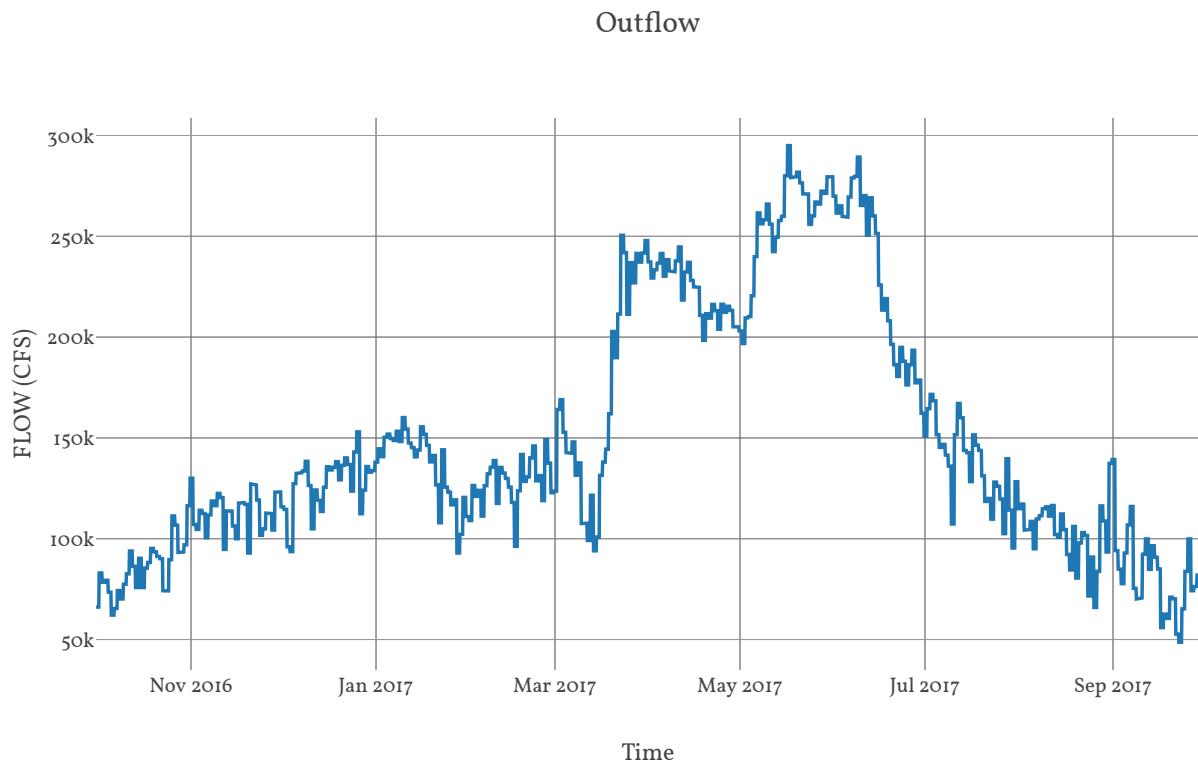


Reservoir : Wanapum

Quality Method : Unspecified

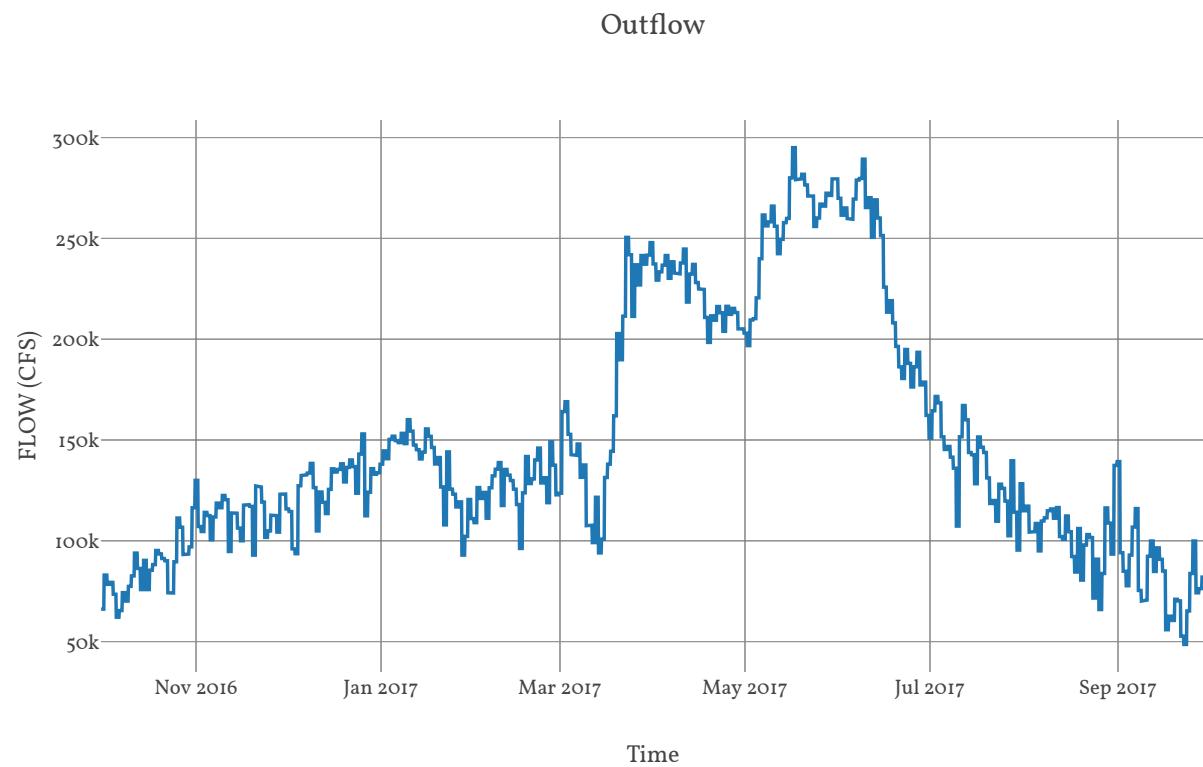
Method : Specified Outflow

Downstream : Wanapum_OUT



Junction : Wanapum_OUT

Downstream : MidColumbia_RO25



Reach : MidColumbia_Ro25

Loss Method : None

Downstream : CrabCk_CF

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : CrabCk_Soro

Area : 299.51

Latitude : 46.87

Longitude : -119.47

Downstream : Crab Creek

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	2.76
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	11.8
Storage Coefficient	11.8

Baseflow

Method

Linear Reservoir

Baseflow Layer List

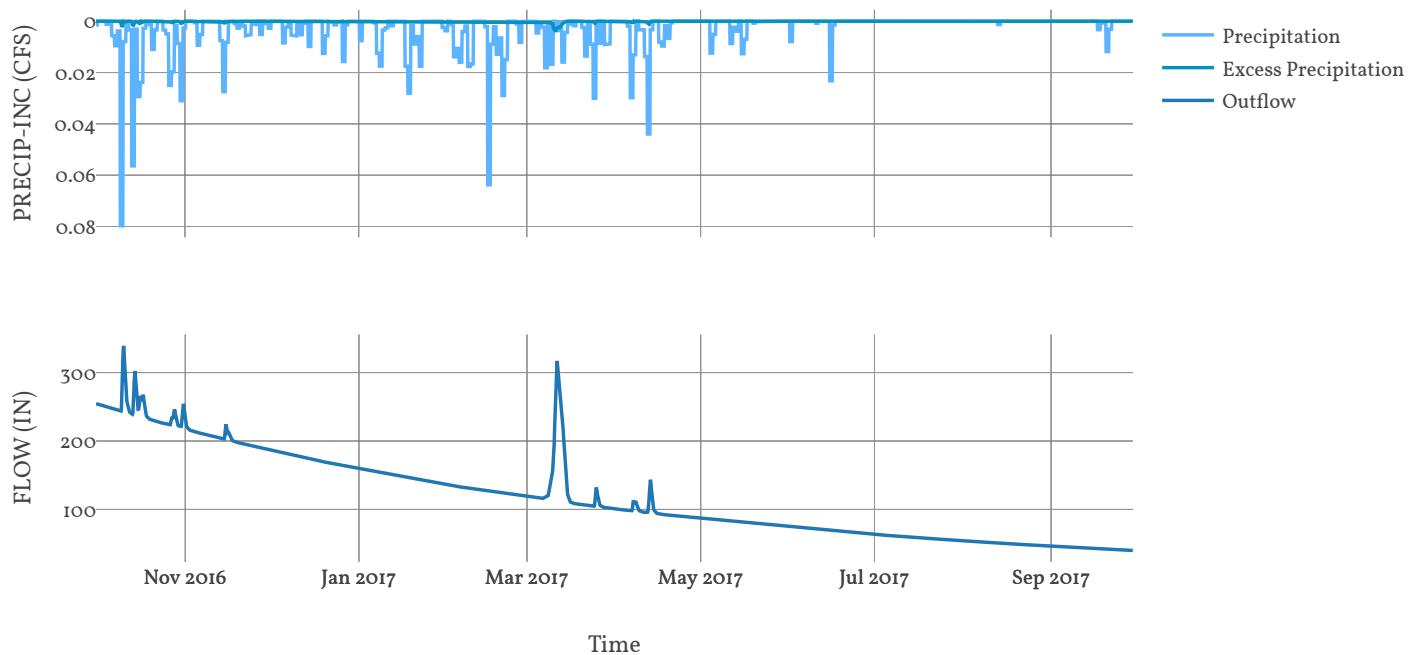
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	236
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.85
	Layer Number	2
	Storage Coefficient	4720
	Number Steps	1

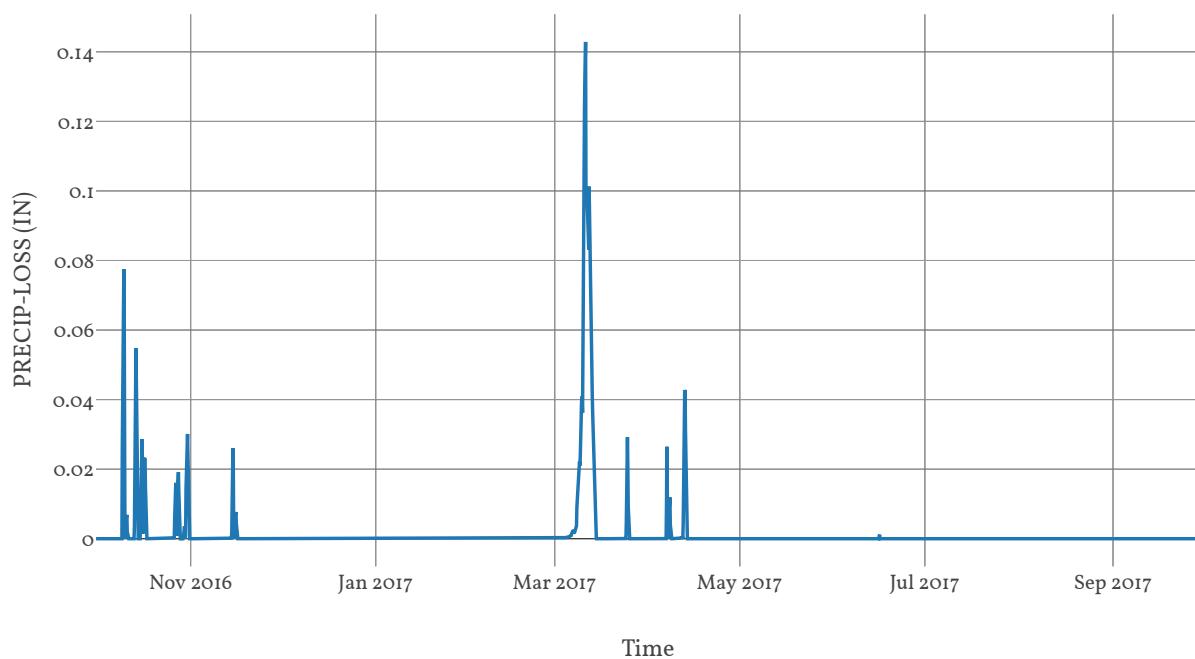
Statistics

Name	Value	Unit
Baseflow Volume	83706.83	Ac-ft
Precipitation Volume	162273.91	Ac-ft
Loss Volume	77417.12	Ac-ft
Excess Volume	2197.36	Ac-ft

Precipitation and Outflow

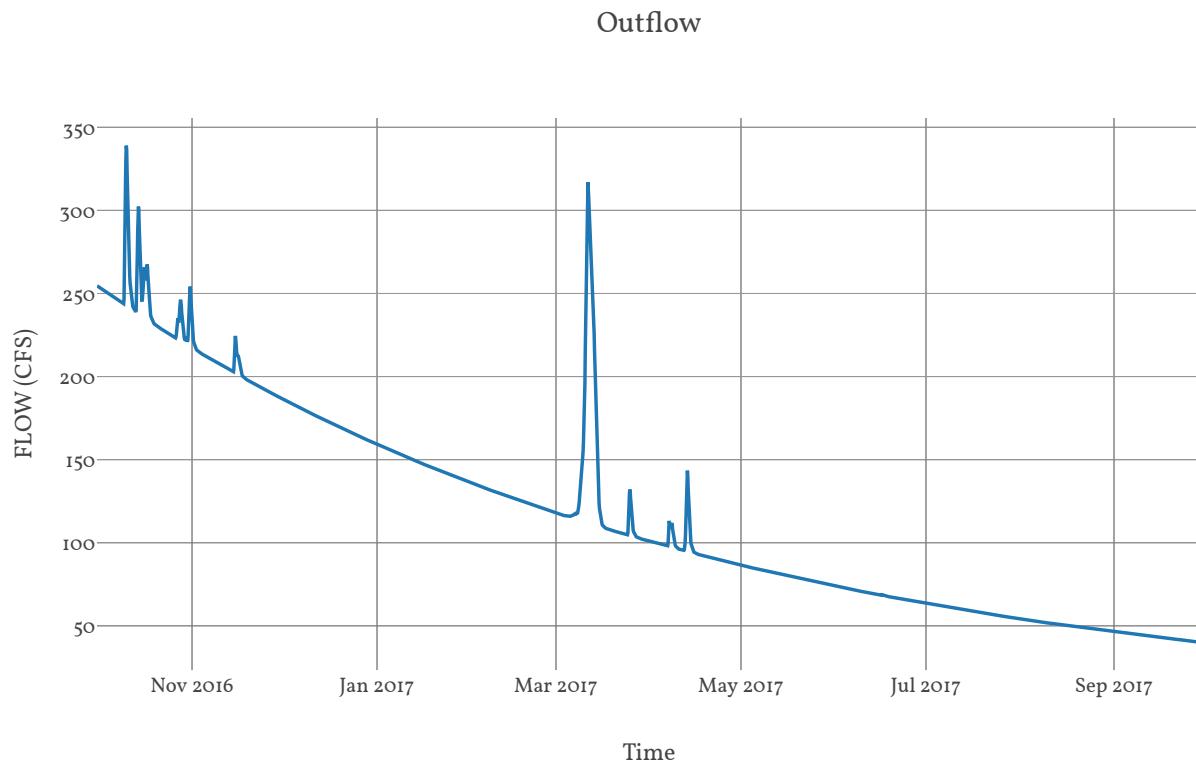


Precipitation Loss



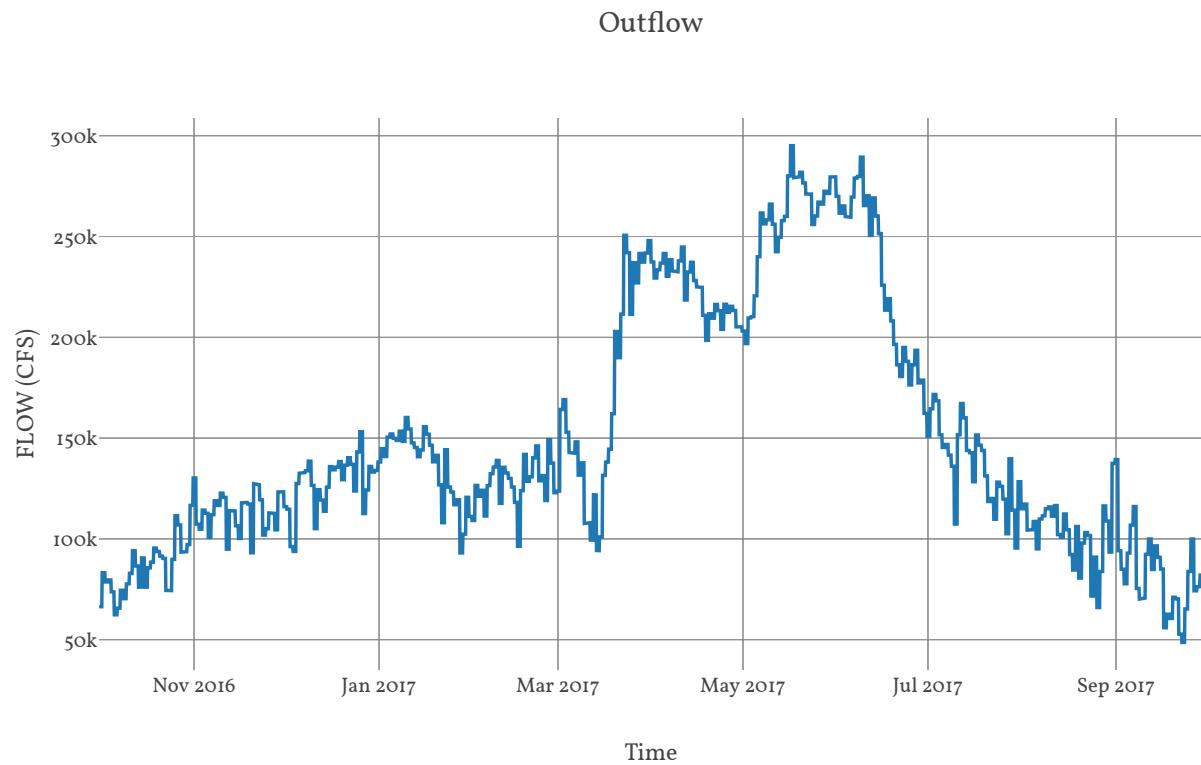
Junction : CrabCreek

Observed Hydrograph : Crab creek near beverly
Downstream : CrabCk_CF



Junction : CrabCk_CF

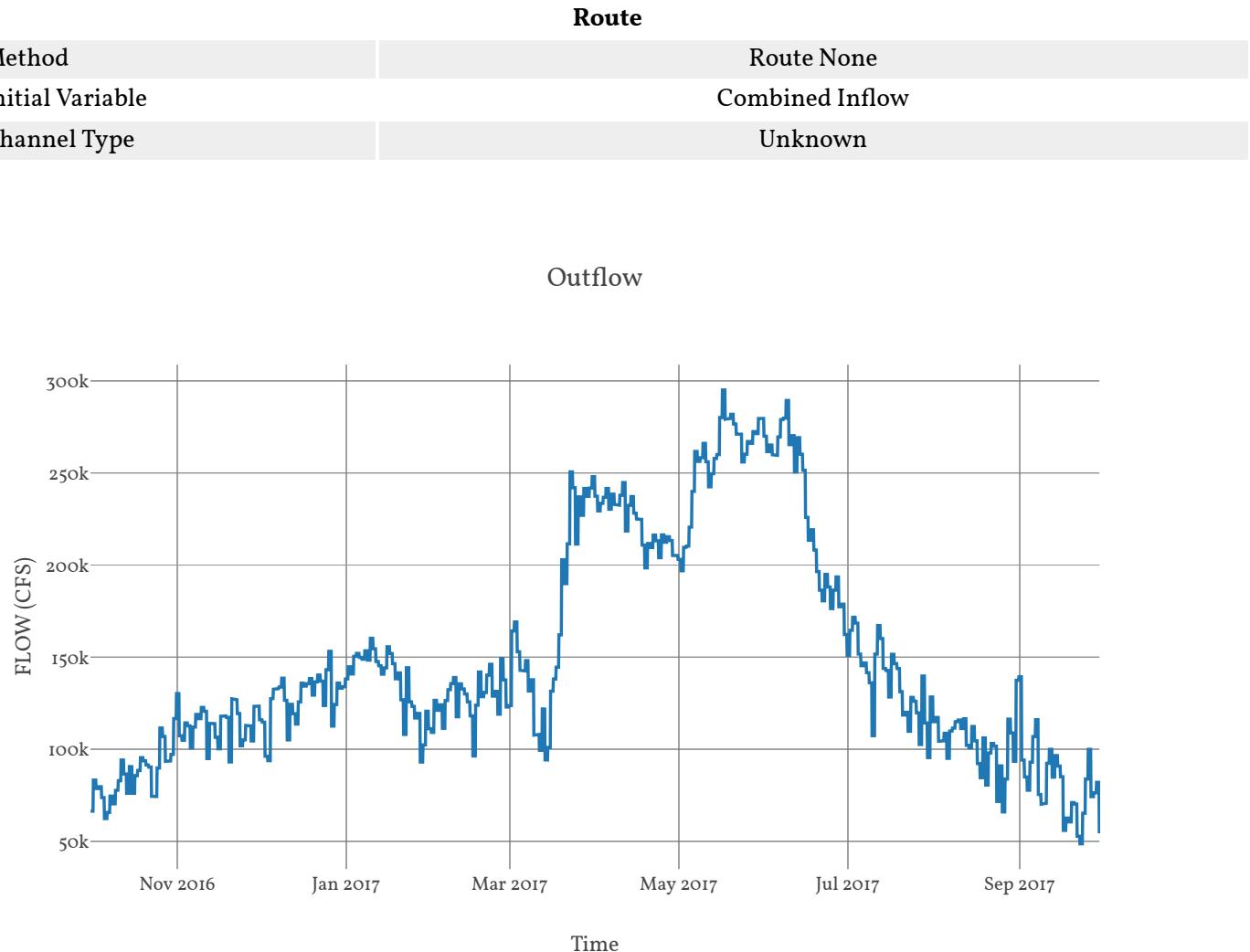
Downstream : MidColumbia_R020



Reach : MidColumbia_R020

Loss Method : None

Downstream : PriestRapids_IN



Subbasin : MidColumbia_So20

Area : 241.95

Latitude : 46.77

Longitude : -119.99

Downstream : PriestRapids_IN

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.28
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	O
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	O.I

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	7.32
Storage Coefficient	7.32

Baseflow

Method

Linear Reservoir

Baseflow Layer List

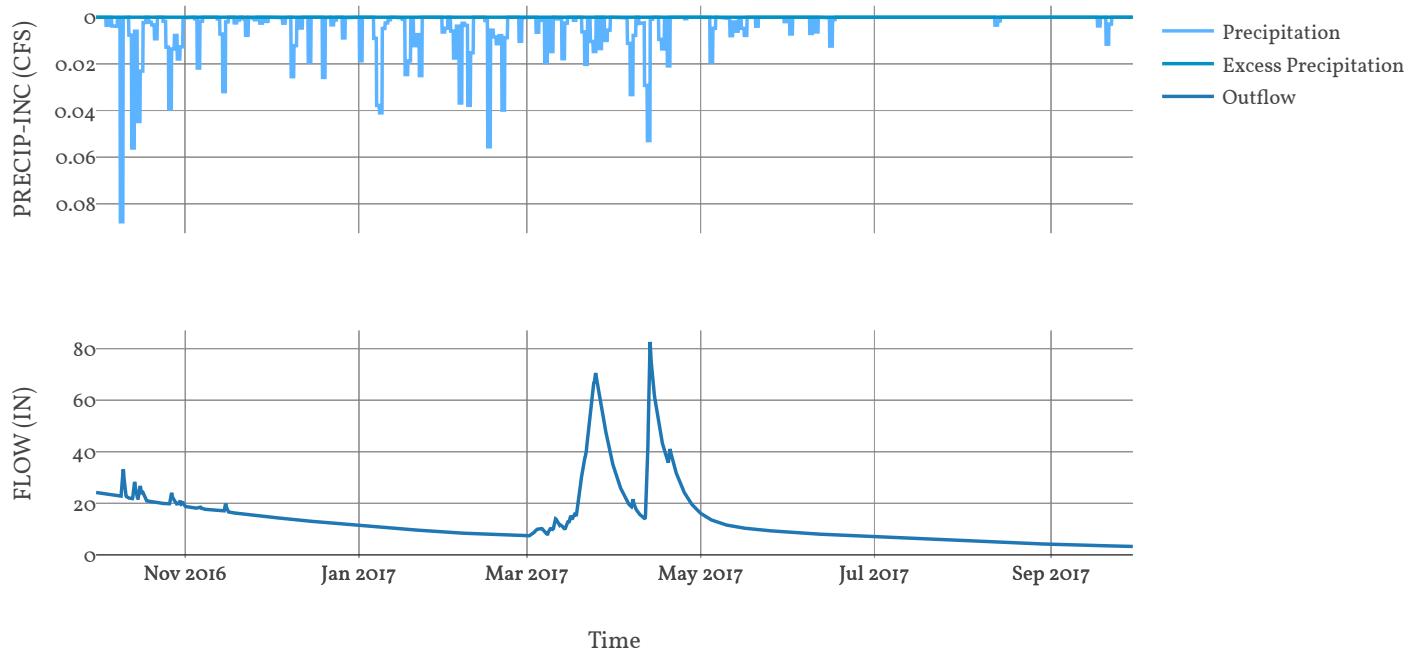
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	146.4
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	2928
	Number Steps	1

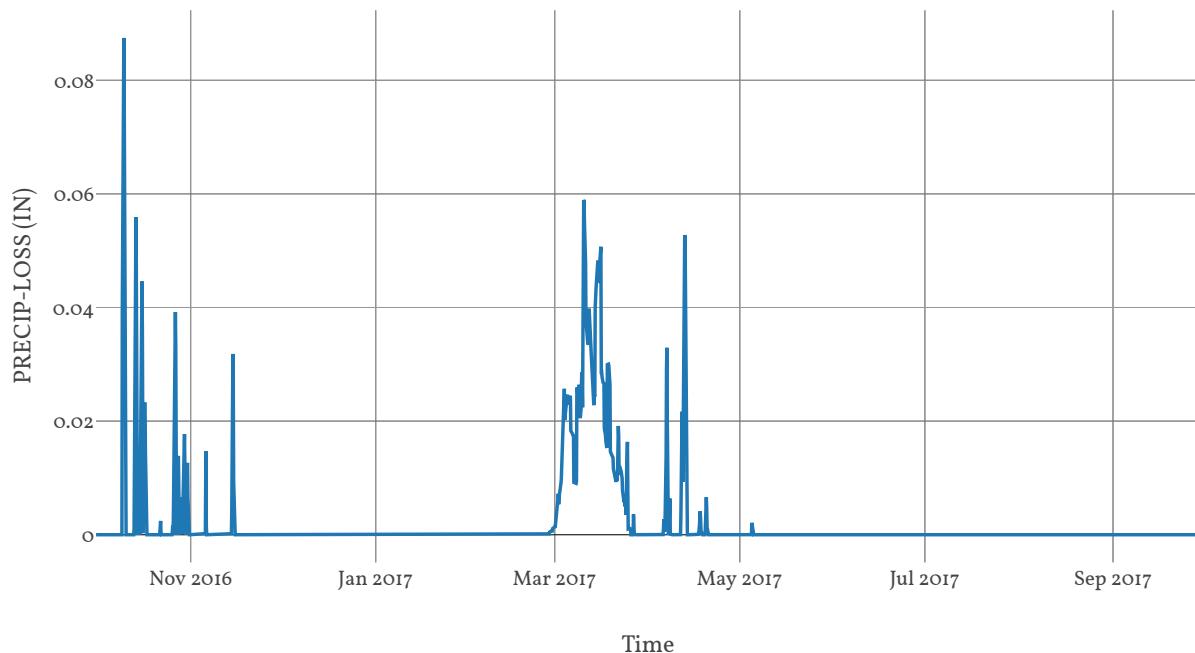
Statistics

Name	Value	Unit
Baseflow Volume	9428.61	Ac-ft
Precipitation Volume	153706.24	Ac-ft
Loss Volume	87031.88	Ac-ft
Excess Volume	244.37	Ac-ft

Precipitation and Outflow



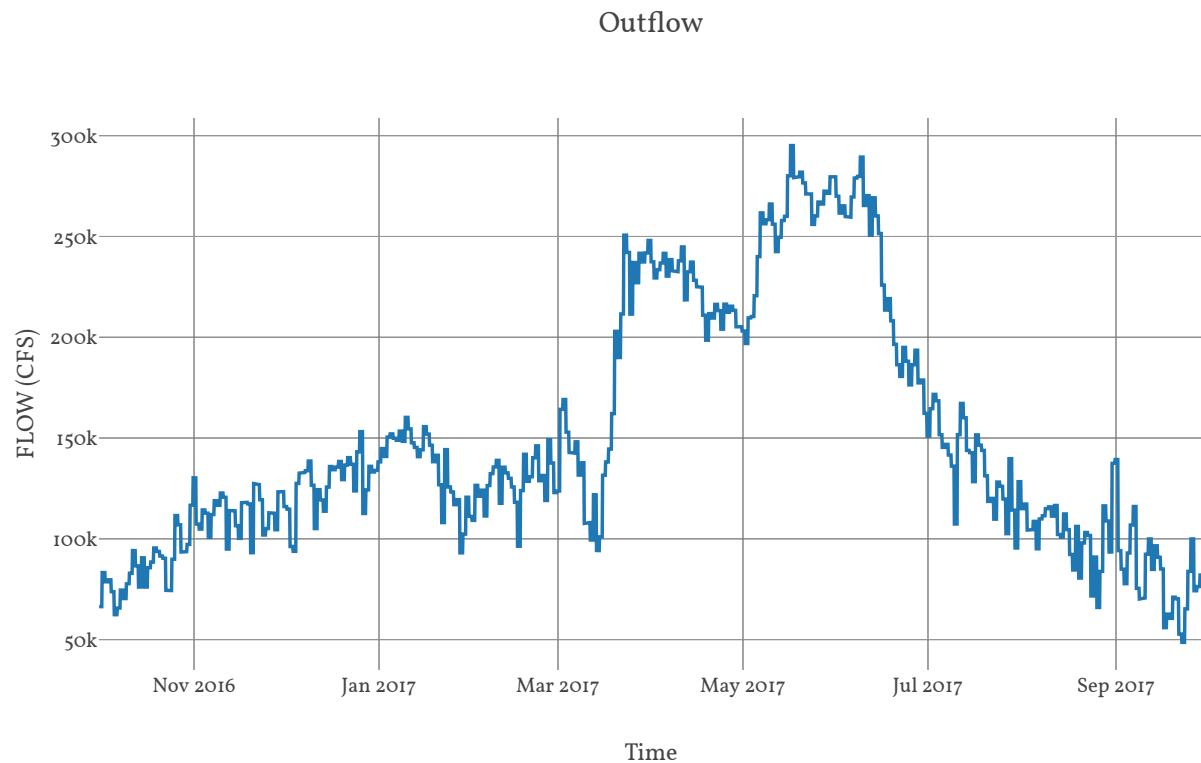
Precipitation Loss



Junction : PriestRapids_IN

Observed Hydrograph : Priest Rapids Dam In

Downstream : Priest Rapids

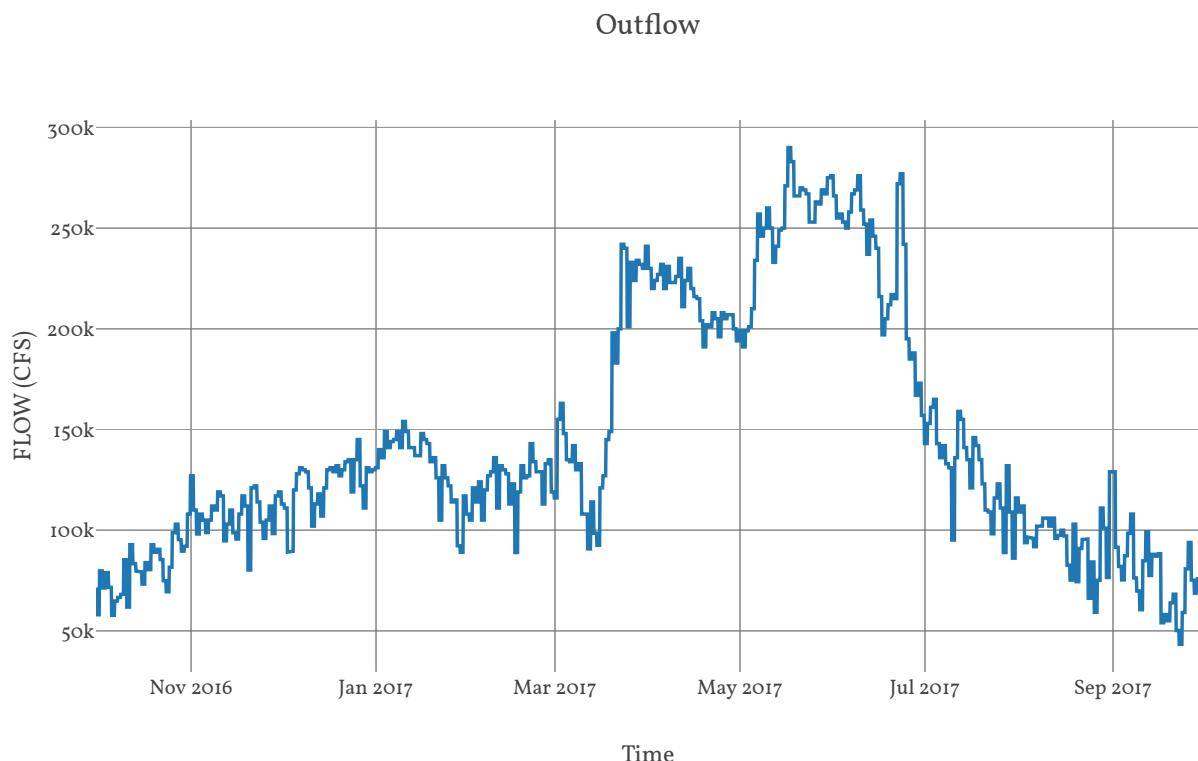


Reservoir : PriestRapids

Quality Method : Unspecified

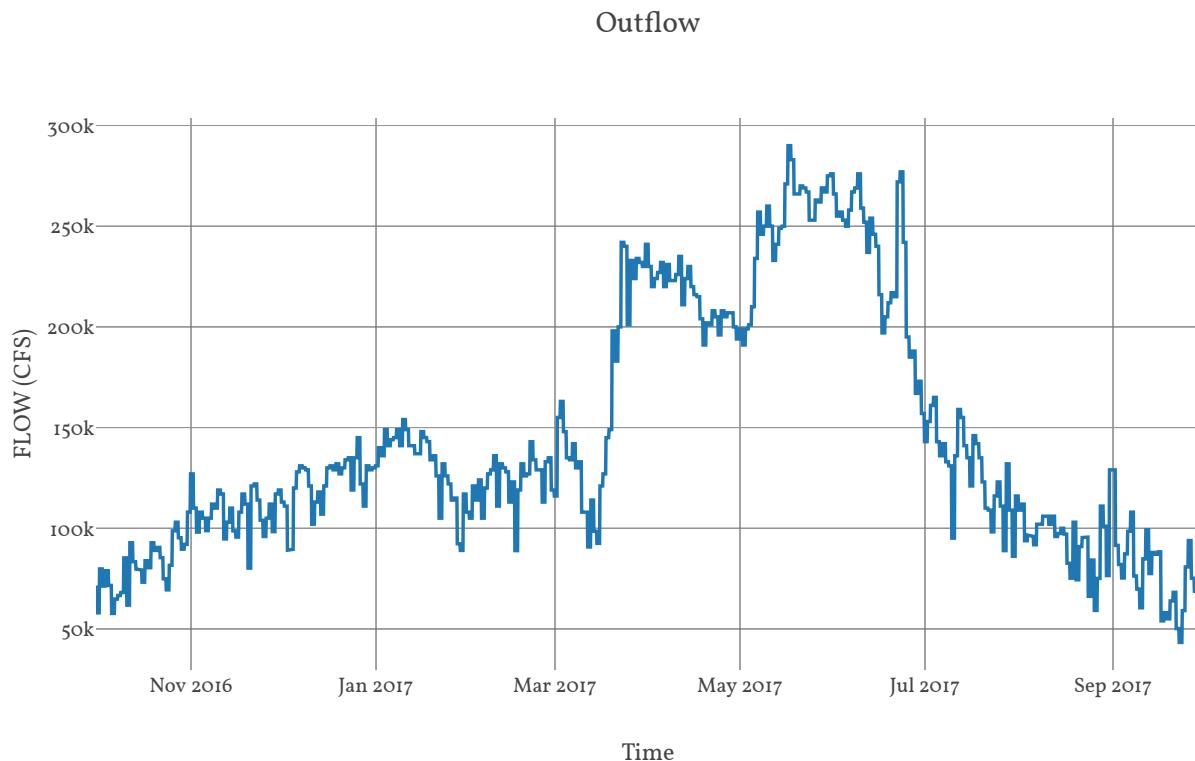
Method : Specified Outflow

Downstream : PriestRapids_OUT



Junction : PriestRapids_OUT

Downstream : MidColumbia_ROI5



Reach : MidColumbia_Ro15

Loss Method : None

Downstream : Pe16p4ww Cf

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : PEI6P4WW_SoIO

Area : 356.11

Latitude : 46.77

Longitude : -119.08

Downstream : Pei6p4ww Cf

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	1.67
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	12.71
Storage Coefficient	12.71

Baseflow

Method

Linear Reservoir

Baseflow Layer List

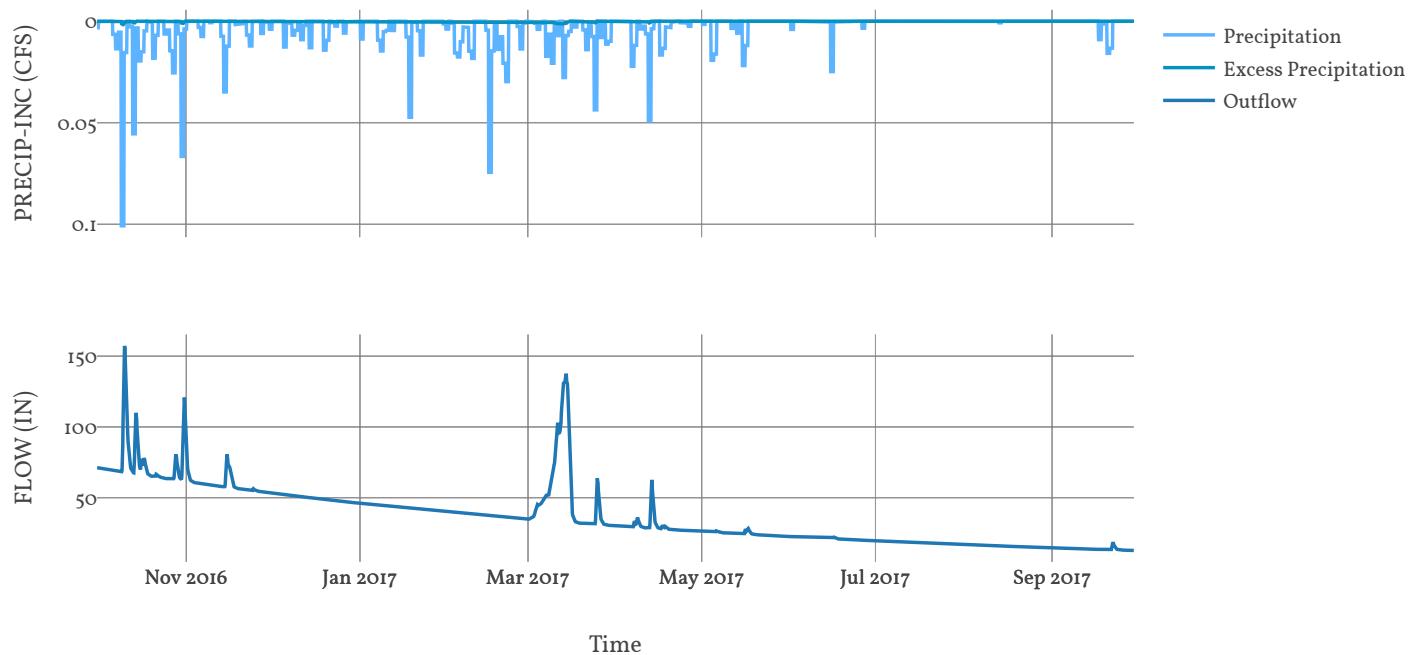
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	254.2
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.2
	Layer Number	2
	Storage Coefficient	5084
	Number Steps	1

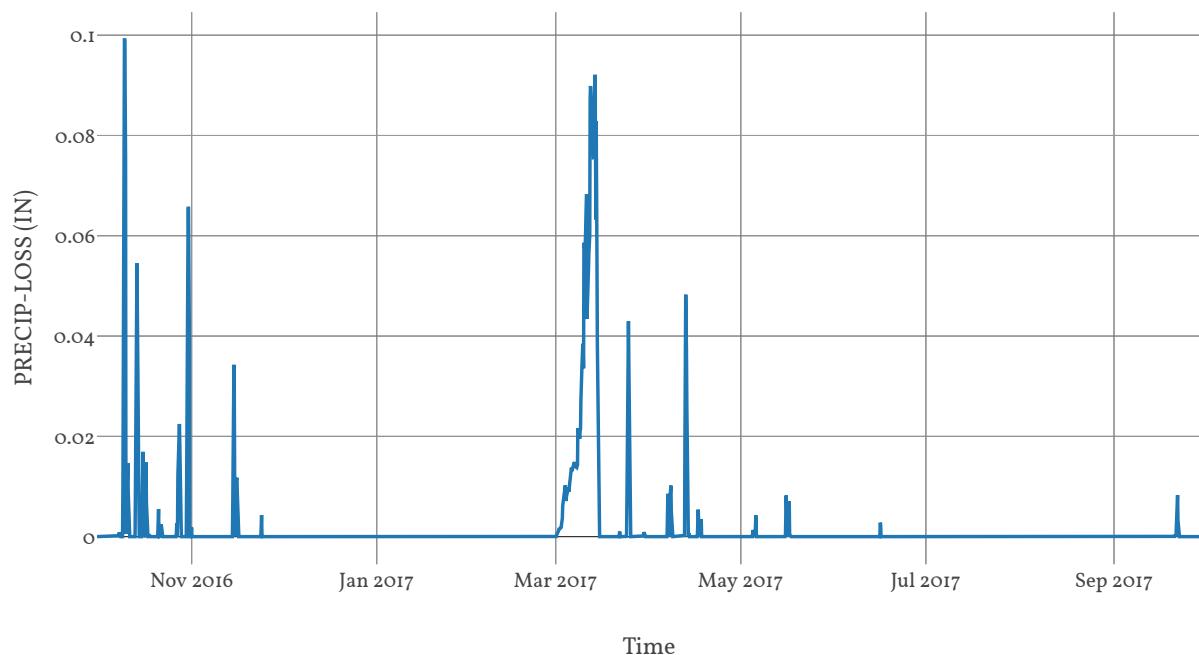
Statistics

Name	Value	Unit
Baseflow Volume	24557.51	Ac-ft
Precipitation Volume	224488.7	Ac-ft
Loss Volume	112869.14	Ac-ft
Excess Volume	1916.93	Ac-ft

Precipitation and Outflow

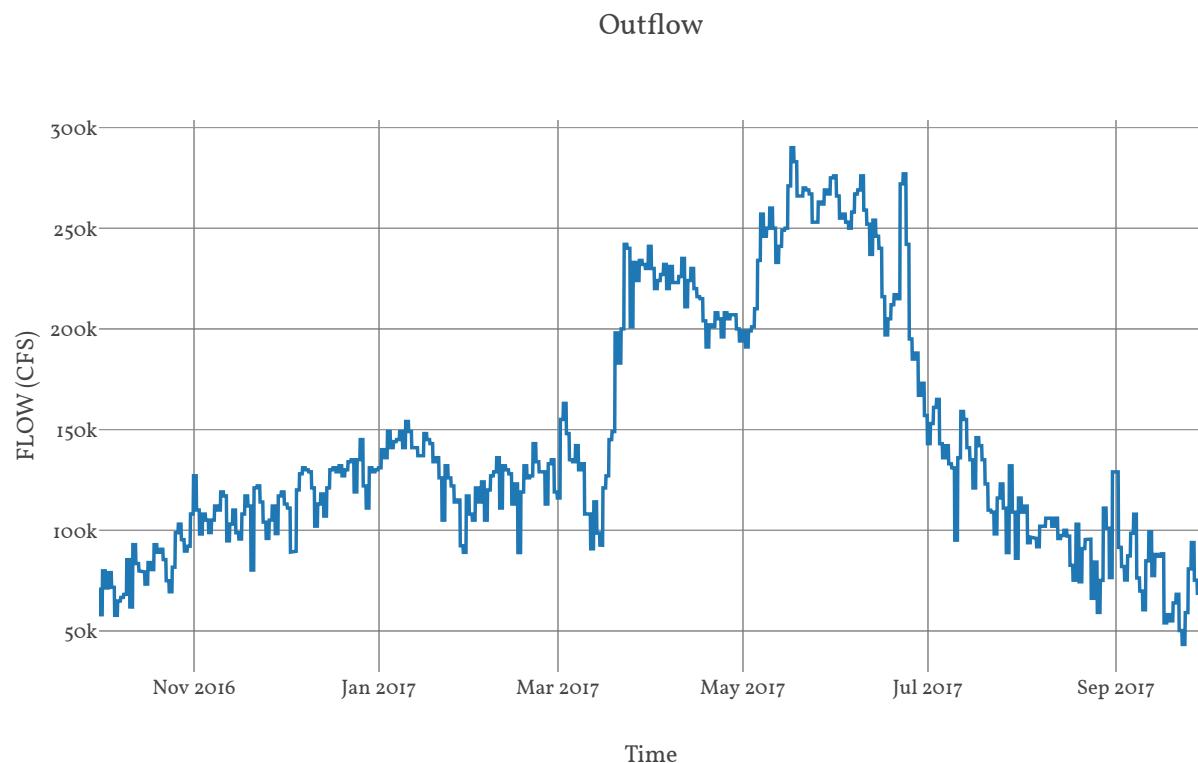


Precipitation Loss



Junction : PEI6P4WW_CF

Downstream : MidColumbia_RoIO



Reach : MidColumbia_Ro10

Loss Method : None

Downstream : To Main Columbia

Route

Method	Route None
Initial Variable	Combined Inflow
Channel Type	Unknown

Outflow



Subbasin : MidColombia_Soil

Area : 622.25

Latitude : 46.64

Longitude : -119.5

Downstream : To Main Columbia

Loss Rate

Percolation Rate	0.25
Percent Impervious Area	0.49
Method	Deficit Constant
Initial Deficit	6
Maximum Deficit	6
Recovery Factor	I

Canopy

Initial Storage	0
Uptake Method	Simple
Method	Simple
Allow Simultaneous Precip Et	True
Crop Coefficient	I
Storage Capacity	0.1

Transform

Clark Method Type	Specified
Time Area Method	Default
Method	Mod Clark
Grid Region Name	Middle Columbia
Time Of Concentration	14.13
Storage Coefficient	14.13

Baseflow

Method

Linear Reservoir

Baseflow Layer List

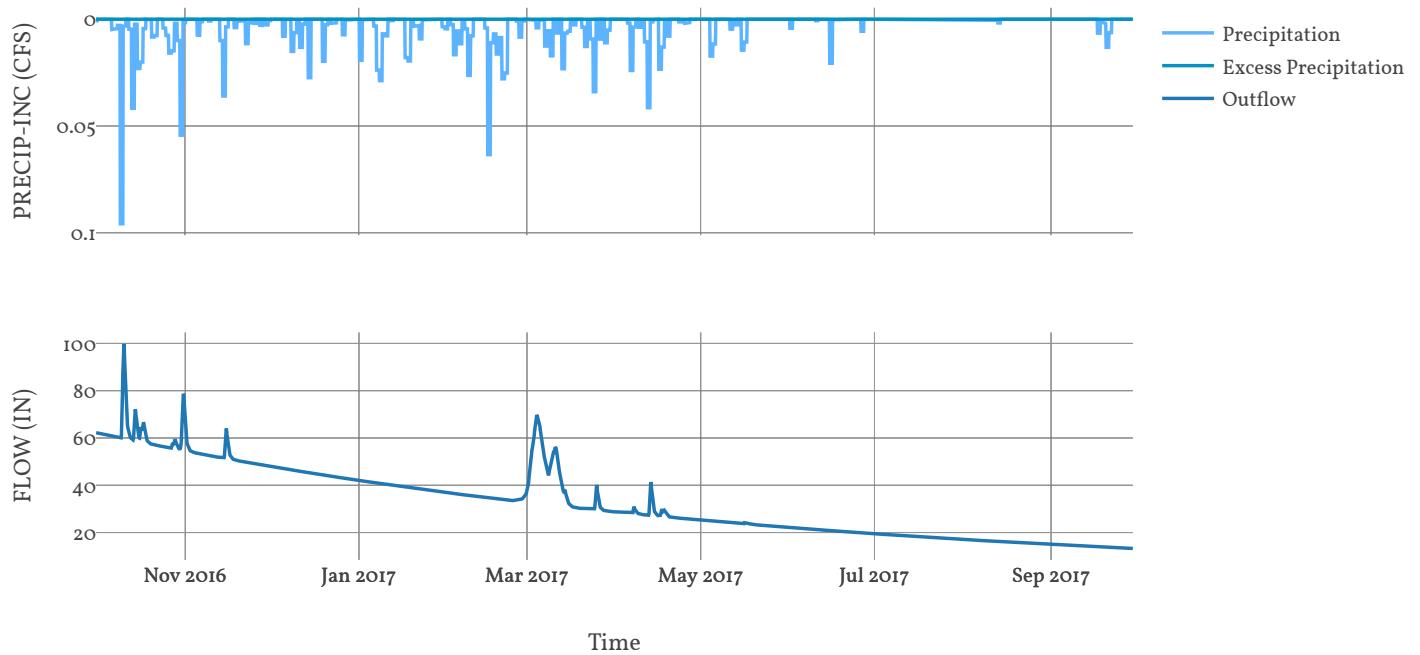
I	Baseflow Fraction	0.5
	Initial Rate	0
	Layer Number	1
	Storage Coefficient	282.6
	Number Steps	1

2	Baseflow Fraction	0.5
	Initial Rate	0.1
	Layer Number	2
	Storage Coefficient	5652
	Number Steps	1

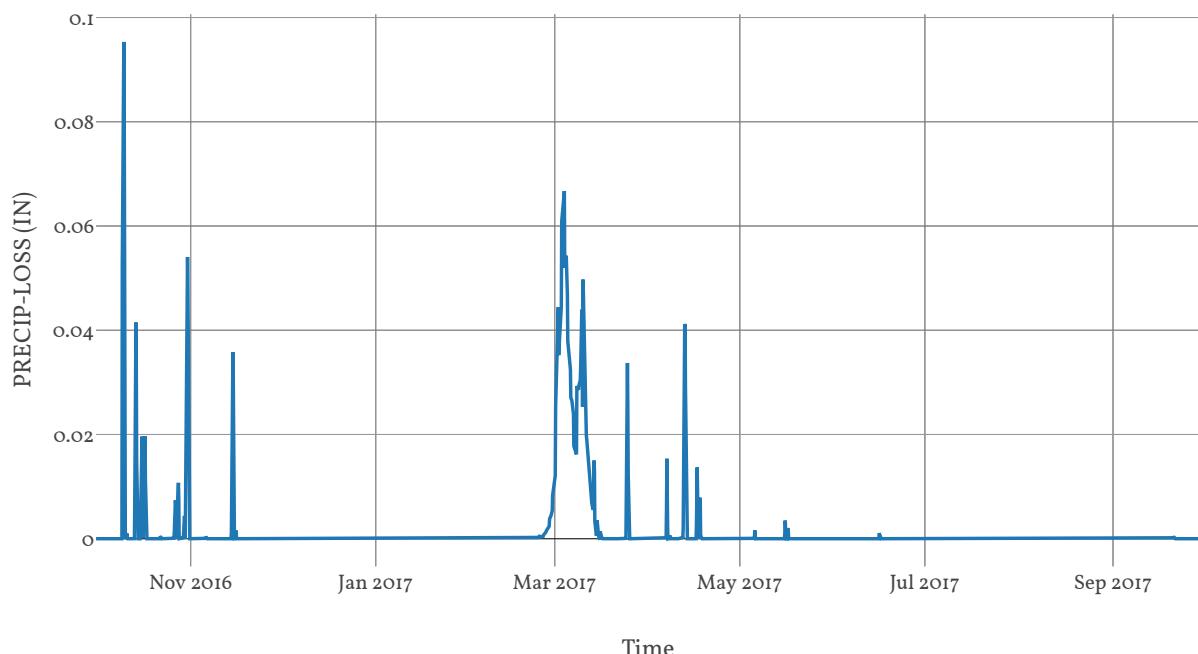
Statistics

Name	Value	Unit
Baseflow Volume	22869.7	Ac-ft
Precipitation Volume	362923.01	Ac-ft
Loss Volume	179142.97	Ac-ft
Excess Volume	882.12	Ac-ft

Precipitation and Outflow



Precipitation Loss



Sink : ToMainColumbia

