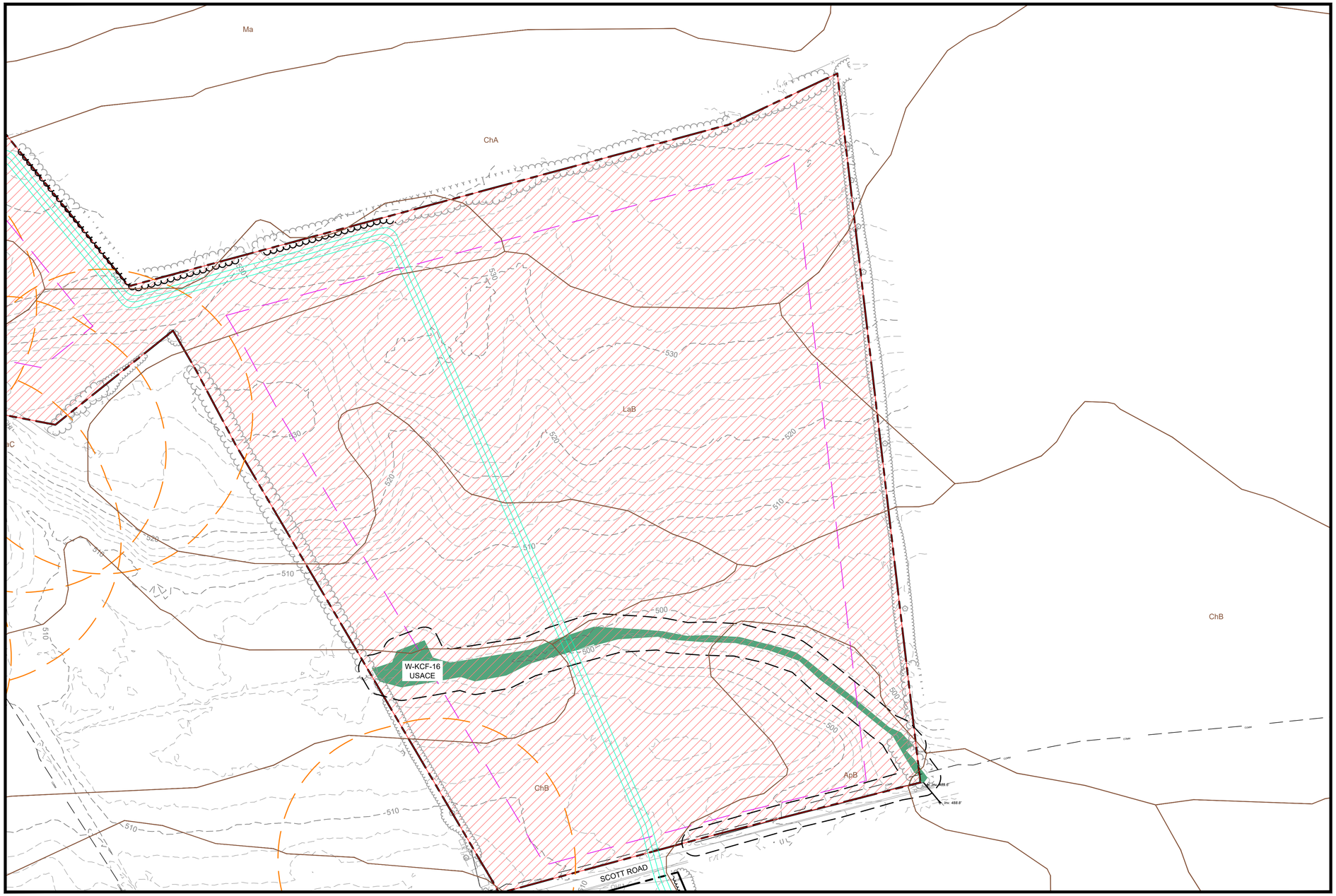
Mill Point Solar I Project

Preliminary Stormwater Pollution Prevention Plan (SWPPP)

Part 4 of 4

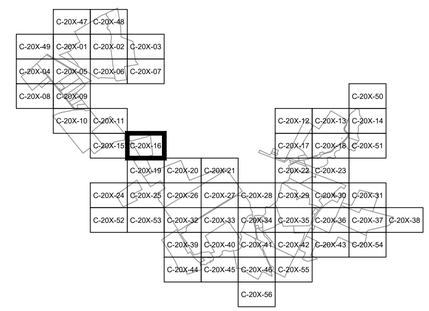
MATCHLINE SHEET MPS-C-202-15



MATCHLINE SHEET MPS-C-202-19

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-16

REV. A

MATCHLINE SHEET MPS-C-202-12

MATCHLINE SHEET MPS-C-202-18

MATCHLINE SHEET MPS-C-202-22

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

W-NSD-4 USACE
W-NSD-2 USACE
W-NSD-1 USACE/NYDEC
S-NSD-5 USACE
S-NSD-7 USACE
44.1S
44.1P
44S
43S
45S
HSG C ± 9%
HSG D ± 8%
EL. 466.6±
EL. 464.0±
EL. 455.0±
EL. 432.0±
EL. 440.0±
100' SF
409' SCF
715 CF
1556' SCF
20' MIN. (TYP.)
INV-O.03
INSERSOLL ROAD
Ma
DaB
ChB
HuB

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
C-20X-10 C-20X-11
C-20X-15 C-20X-16
C-20X-19 C-20X-20 C-20X-21
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34
C-20X-39 C-20X-40 C-20X-41 C-20X-42 C-20X-43
C-20X-44 C-20X-45 C-20X-46 C-20X-55
C-20X-56
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23
C-20X-29 C-20X-30 C-20X-31
C-20X-35 C-20X-36 C-20X-37 C-20X-38

N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

Call 811 before you dig

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

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	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-17

REV. A

MATCHLINE SHEET MPS-C-202-13

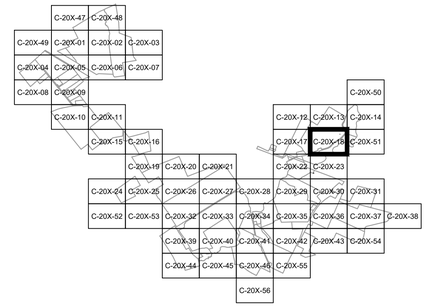
MATCHLINE SHEET MPS-C-202-17

MATCHLINE SHEET MPS-C-202-51

MATCHLINE SHEET MPS-C-202-23

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



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MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-18

REV. A

MATCHLINE SHEET MPS-C-202-16

MATCHLINE SHEET MPS-C-202-20

MATCHLINE SHEET MPS-C-202-25

SCOTT ROAD

VAN EPPS ROAD

NON-JD DRAINAGE

NON-JD DRAINAGE

ApB

Fo

ChB

LaB

LaC

SP17

17P

17S

19S

EL. 503.60±

EL. 521.84±

EL. 523.59±

EL. 516.76±

EL. 531.44±

100' SF

668' SCF

813' SCF

635' SCF

1647' CF

S-MLM-2
USACE

W-MLM-7
USACE

S-MLM-3
USACE

W-MLM-8
USACE

W-KCF-15
USACE/NYDEC

W-KCF-13
USACE/NYDEC

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
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CHANNEL FLOW	100' CF
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REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
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C-20X-56
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-19 C-20X-51
C-20X-22 C-20X-23

N

100 0 100 200 FT

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PROJECT NO: 443269

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	-	-	-	-	-	-
	A	ISSUED FOR 94-C	01/15/2024	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

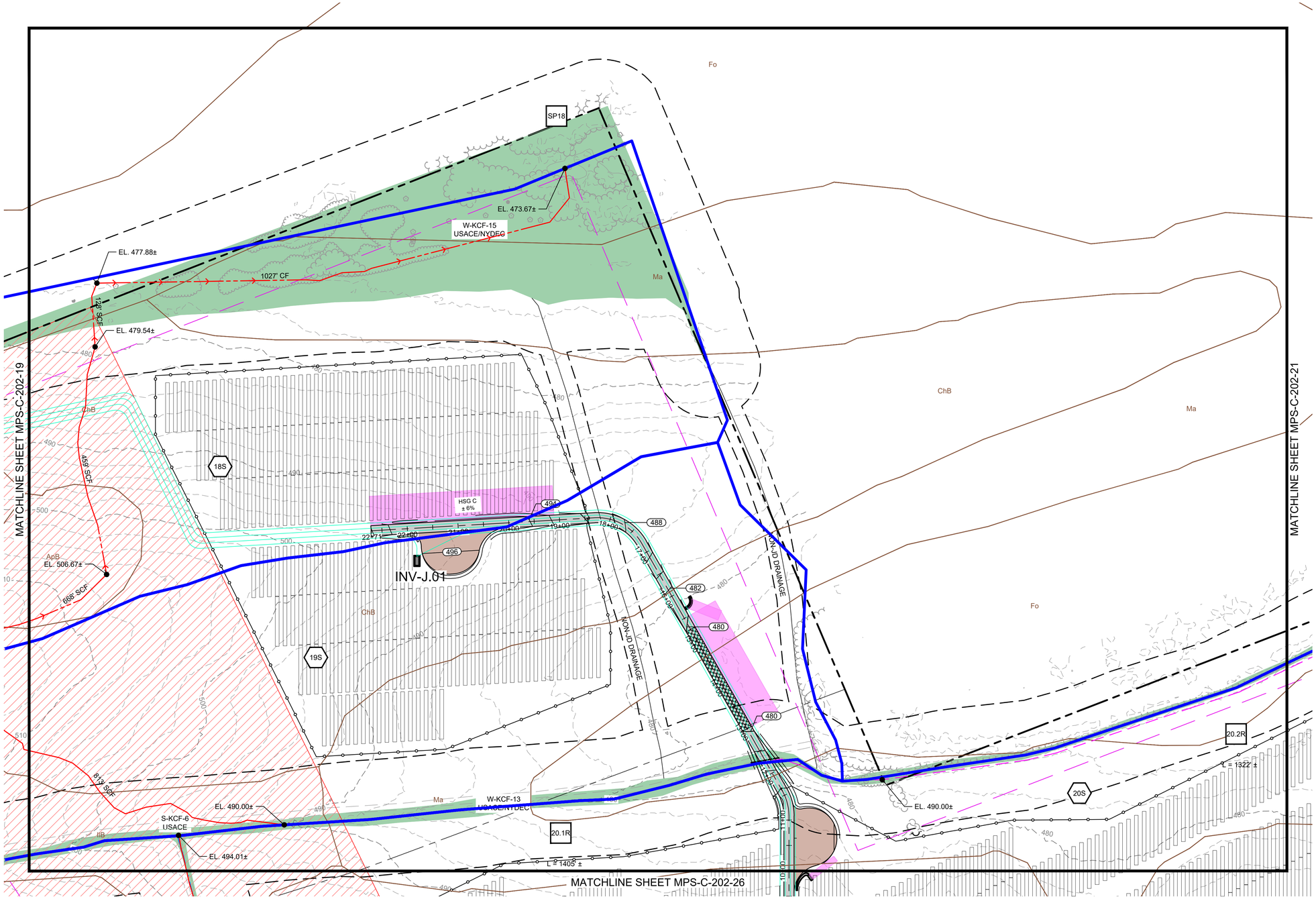
TRC

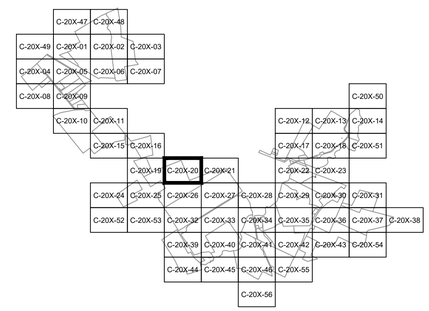
MPS-C-202-19

REV. A

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	





N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

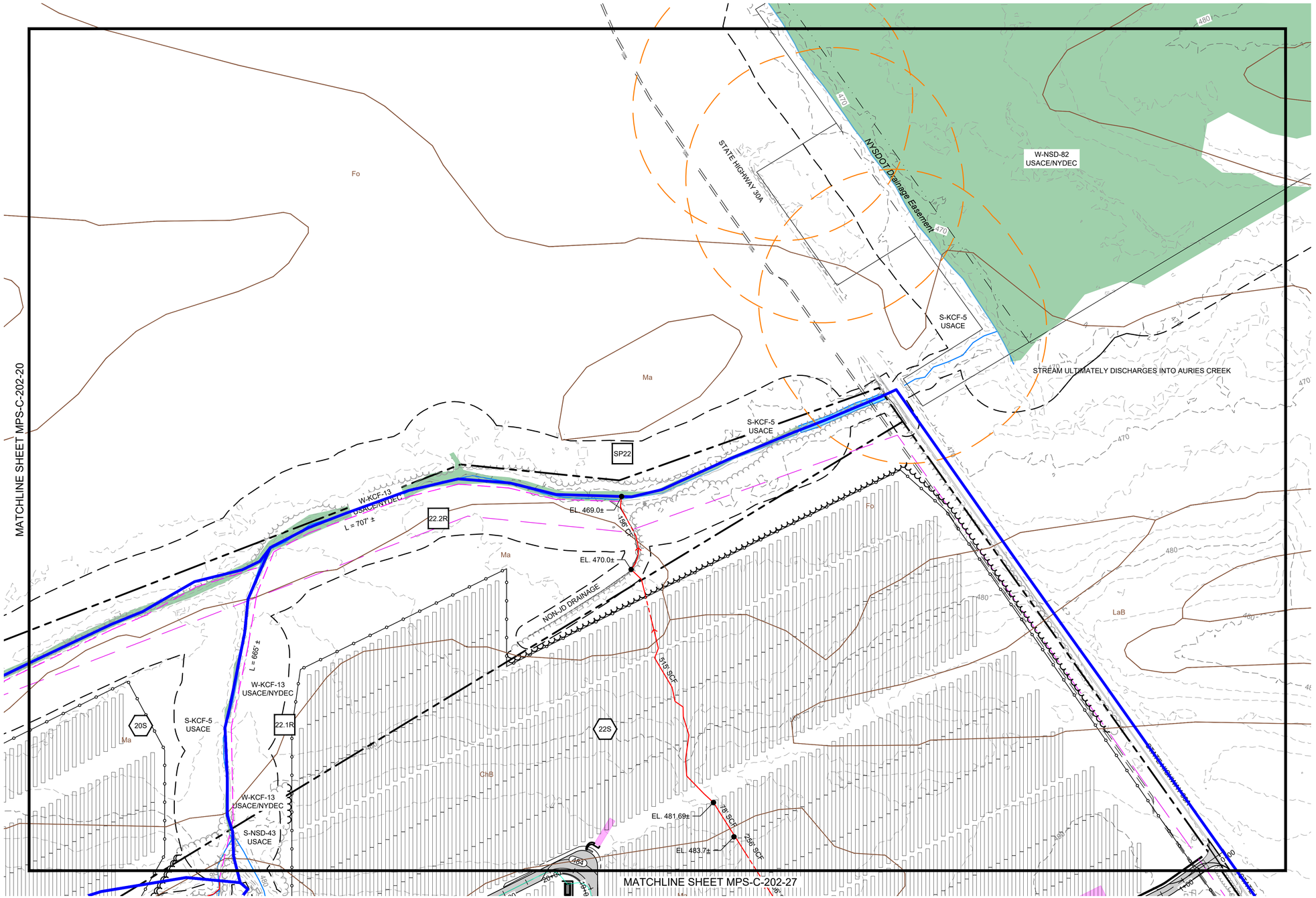
PMM	DESIGNED
PMM	DRAWN
PMM	CHECKED
-	APPROVED
-	REVIEW 1
-	REVIEW 2
03/01/2023	DATE
1" = 100'	SCALE

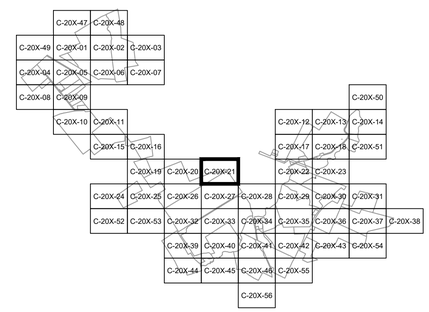
MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

MPS-C-202-20

REV. A





LEGEND

- SUBCATCHMENT BOUNDARY
- TIME OF CONCENTRATION FLOW LINE
- REACH
- SHEET FLOW — 100' SF
- SHALLOW CONCENTRATED FLOW — 100' SCF
- CHANNEL FLOW — 100' CF
- SPOT ELEVATION — EL. 520.0±
- REACH ID — 1R
- SUBCATCHMENT ID — 1S
- POND ID — 1P
- STUDY POINT ID — SP1
- SOILS BOUNDARY

N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
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	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED	MILL POINT SOLAR PROJECT
PMM DRAWN	CONNECTGEN, LLC
PMM CHECKED	POST-DEVELOPMENT STORMWATER PLAN
- APPROVED	-
GLEN	NEW YORK
- REVIEW 1	03/01/2023 DATE
- REVIEW 2	1" = 100' SCALE
TRC	MPS-C-202-21
	REV. A

MATCHLINE SHEET MPS-C-202-17

MATCHLINE SHEET MPS-C-202-23

MATCHLINE SHEET MPS-C-202-29

EL. 470.0±

100' SF

EL. 471.5±

43S

45S

INGERSOLL ROAD

W-NSD-82
USACE/NYDEC

INGERSOLL ROAD

LaB

LaD

S-NSD-12
USACE

S-NSD-1
USACE/NYSDEC

SP42

AURIES CREEK

S-NSD-1
USACE/NYSDEC

FL

S-NSD-15
USACE

S-NSD-1
USACE/NYSDEC

S-NSD-16
USACE

42S

SP41

S-NSD-13
USACE

EL. 406.0±

1289' SCF

41S

AURIES CREEK

42R

20' WIDE
ACCESS ROAD

HSG B
6%

20+00

19+00

18+00

252' SCF

EL. 467.0±

140' SCF

EL. 470.75±

100' SF

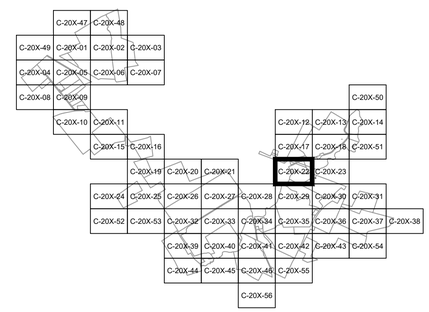
EL. 472.0±

16+00

15+00

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

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249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

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PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2
03/01/2023 DATE
1" = 100' SCALE

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

MPS-C-202-22

REV. A

MATCHLINE SHEET MPS-C-202-18

MATCHLINE SHEET MPS-C-202-22

MATCHLINE SHEET MPS-C-202-106

ROAD

S-NSD-1
USACE/NYSDEC

50' (TYP.)

EL. 368.0±

EL. 465.0±

INV-F.10

20+00 21+00 22+00 22+68

HSG F

472 SCF

42S

42.1P

42.1S

42.2S

48S

SP48

Ha

FL

PmC

HrD

PmB

ChB

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
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C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23

N

100 0 100 200 FT

SCALE: 1" = 100'

Dig Safely. New York. Call 811 before you dig

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Augusta, ME 04330

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PMM DRAWN
PMM CHECKED
- APPROVED
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REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-23

REV. A

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
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CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

MATCHLINE SHEET MPS-C-202-52

MATCHLINE SHEET MPS-C-202-25

RIVENBURGH ROAD

MILE LEVEL ROAD

NON-JD DRAINAGE

W-JMP-42 USACE

W-KCF-14 USACE

INV-H.01

17S

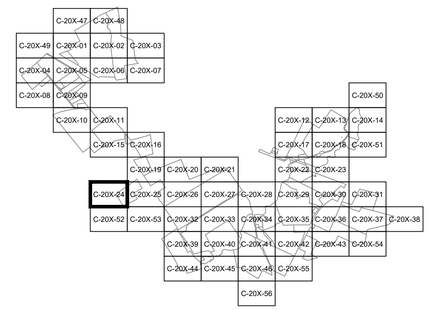
HSC B 7%

178 LF

1087 SQF

EL. 527.0±

LaB LaC Ma Fo LaD ChB ApB



N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY

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Augusta, ME 04330

PROJECT NO: 443269

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PMM	DESIGNED
PMM	DRAWN
PMM	CHECKED
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-	REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-24

REV. A

MATCHLINE SHEET MPS-C-202-19

MATCHLINE SHEET MPS-C-202-24

MATCHLINE SHEET MPS-C-202-26

MATCHLINE SHEET MPS-C-202-53

NON-JD DRAINAGE

MILL POINT ROAD

164' CF

W-MLM-8 USACE

S-MLM-3 USACE

W-MLM-7 USACE

W-KCF-13 USACE/NYDEC

S-KCF-6 USACE

INV-H.02

EL. 534.0±

EL. 531.44±

EL. 559.59±

EL. 555.28±

EL. 542.71±

EL. 557.00±

EL. 564.00±

EL. 601.14±

212' SCF

100' SF

703' SCF

1259' SCF

100' SF

1007' SCF

681' SCF

18.1S

19S

20S

17S

HSG B ± 7%

LaC

ApB

MrB

LEGEND

- SUBCATCHMENT BOUNDARY
- TIME OF CONCENTRATION FLOW LINE
- REACH
- SHEET FLOW — 100' SF
- SHALLOW CONCENTRATED FLOW — 100' SCF
- CHANNEL FLOW — 100' CF
- SPOT ELEVATION — EL. 520.0±
- REACH ID — 1R
- SUBCATCHMENT ID — 1S
- POND ID — 1P
- STUDY POINT ID — SP1
- SOILS BOUNDARY

N

100 0 100 200 FT

SCALE: 1" = 100'

Dig Safely. New York Call 811 before you dig

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PMM DESIGNED

PMM DRAWN

PMM CHECKED

- APPROVED

- REVIEW 1

- REVIEW 2

MILL POINT SOLAR PROJECT

CONNECTGEN, LLC

POST-DEVELOPMENT STORMWATER PLAN

-

GLEN NEW YORK

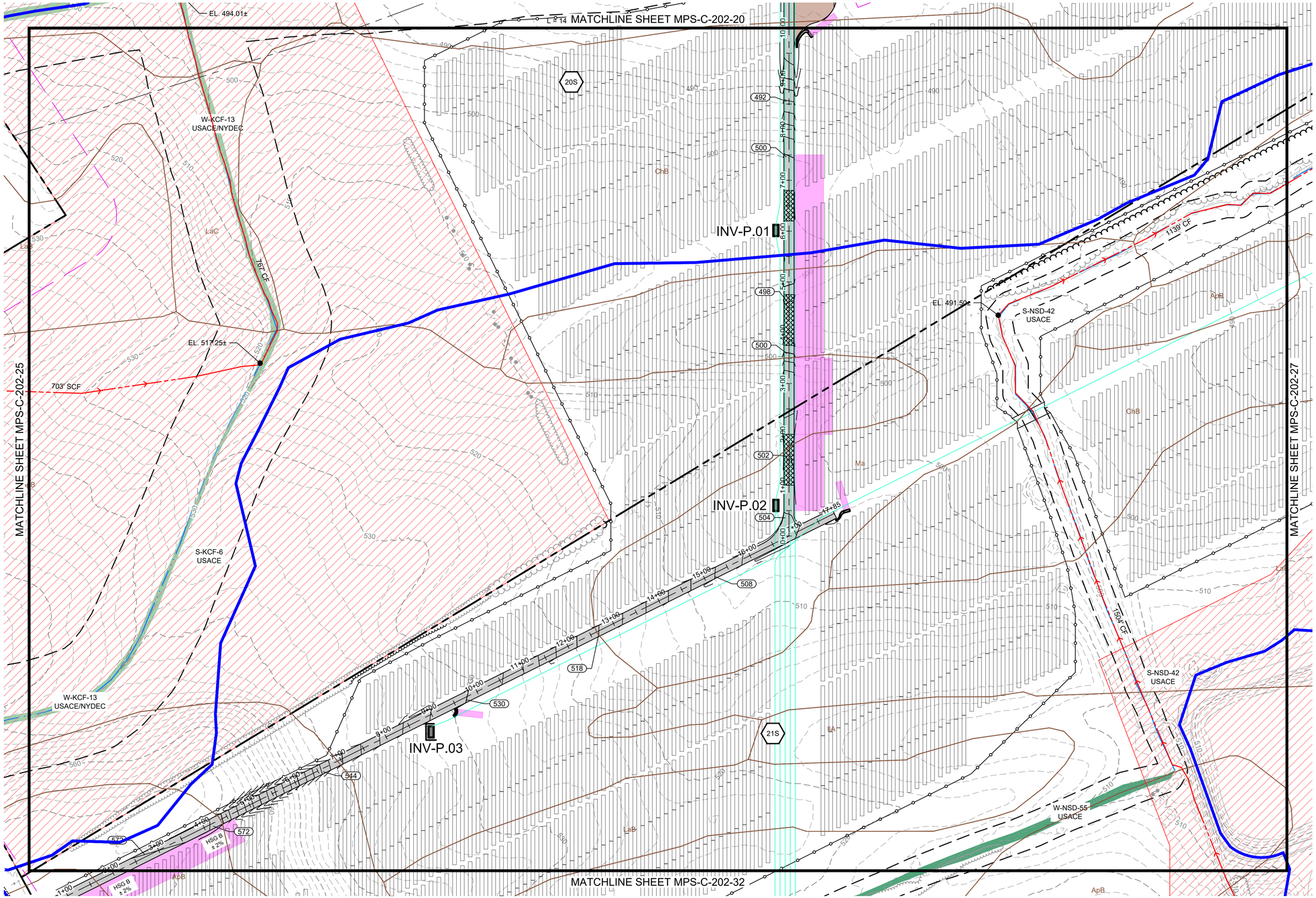
03/01/2023 DATE

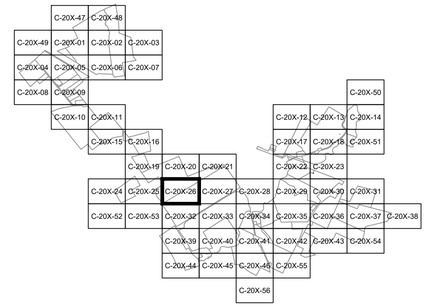
1" = 100' SCALE

TRC

MPS-C-202-25

REV. A





LEGEND

- SUBCATCHMENT BOUNDARY
- TIME OF CONCENTRATION FLOW LINE
- REACH
- SHEET FLOW — 100' SF
- SHALLOW CONCENTRATED FLOW — 100' SCF
- CHANNEL FLOW — 100' CF
- SPOT ELEVATION — EL. 520.0±
- REACH ID — 1R
- SUBCATCHMENT ID — 1S
- POND ID — 1P
- STUDY POINT ID — SP1
- SOILS BOUNDARY

N

100 0 100 200 FT

SCALE: 1" = 100'

Dig Safely. New York Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

REFERENCE ITEMS

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM — DESIGNED
PMM — DRAWN
PMM — CHECKED
- — APPROVED
- — REVIEW 1
- — REVIEW 2

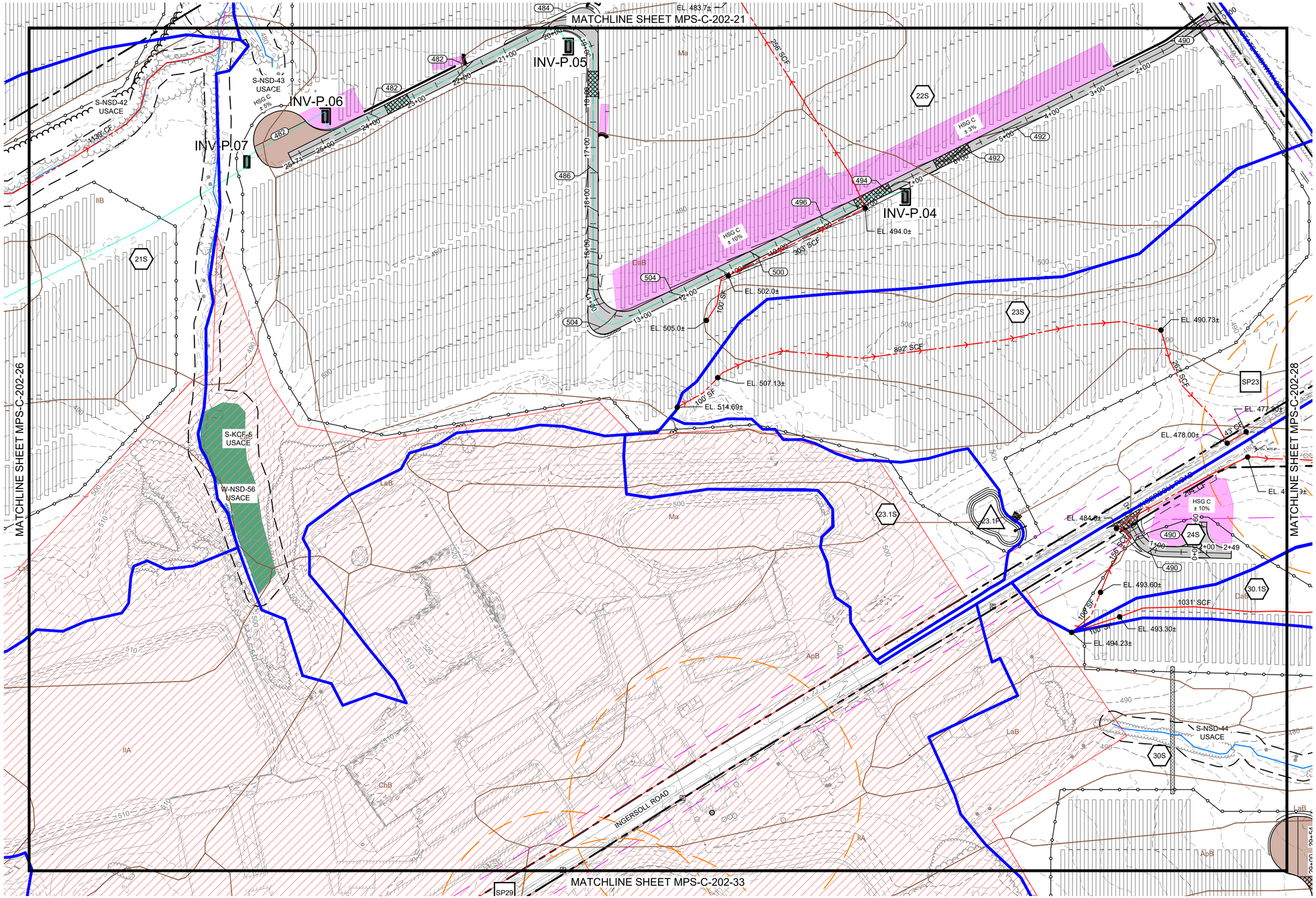
MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 — DATE
1" = 100' — SCALE

TRC

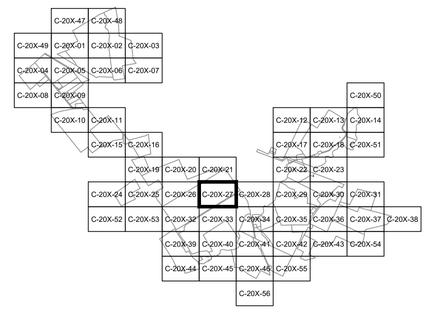
MPS-C-202-26

REV. A



LEGEND

- SUBCATCHMENT BOUNDARY
- TIME OF CONCENTRATION FLOW LINE
- REACH
- SHEET FLOW — 100' SF
- SHALLOW CONCENTRATED FLOW — 100' SCF
- CHANNEL FLOW — 100' CF
- SPOT ELEVATION — EL. 520.0±
- REACH ID — 1R
- SUBCATCHMENT ID — 1S
- POND ID — 1P
- STUDY POINT ID — SP1
- SOILS BOUNDARY



N

100 0 100 200 FT

SCALE: 1" = 100'

Ohio Safely Start Work Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM	DESIGNED
PMM	DRAWN
PMM	CHECKED
-	APPROVED
-	REVIEW 1
	REVIEW 2
03/01/2023	DATE
1" = 100'	SCALE

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

MPS-C-202-27

REV. A

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

INGERSOLL ROAD

STATE HIGHWAY 30A

23S

24S

30.1S

30.1P

30S

41S

39S

SP24

SP39

EL. 467.39±

EL. 463.00±

EL. 505.0±

EL. 420.0±

509' CF

1031' SCF

554' SCF

1017' CF

S-NSD-44
USACE

S-NSD-1
USACE/NYSDEC

S-CIW-3
USACE/NYSDEC

MP-10
ACE

HSG B
± 4%

ChB
LaB
LaC
IIB
PmB
PmC
Ha

MATCHLINE SHEET MPS-C-202-27

MATCHLINE SHEET MPS-C-202-29

MATCHLINE SHEET MPS-C-202-34

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
C-20X-10 C-20X-11
C-20X-15 C-20X-16
C-20X-19 C-20X-20 C-20X-21
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28 C-20X-29 C-20X-30 C-20X-31
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34 C-20X-35 C-20X-36 C-20X-37 C-20X-38
C-20X-39 C-20X-40 C-20X-41 C-20X-42 C-20X-43 C-20X-54
C-20X-44 C-20X-45 C-20X-46 C-20X-55
C-20X-56
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23

N

100 0 100 200 FT

SCALE: 1" = 100'

Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

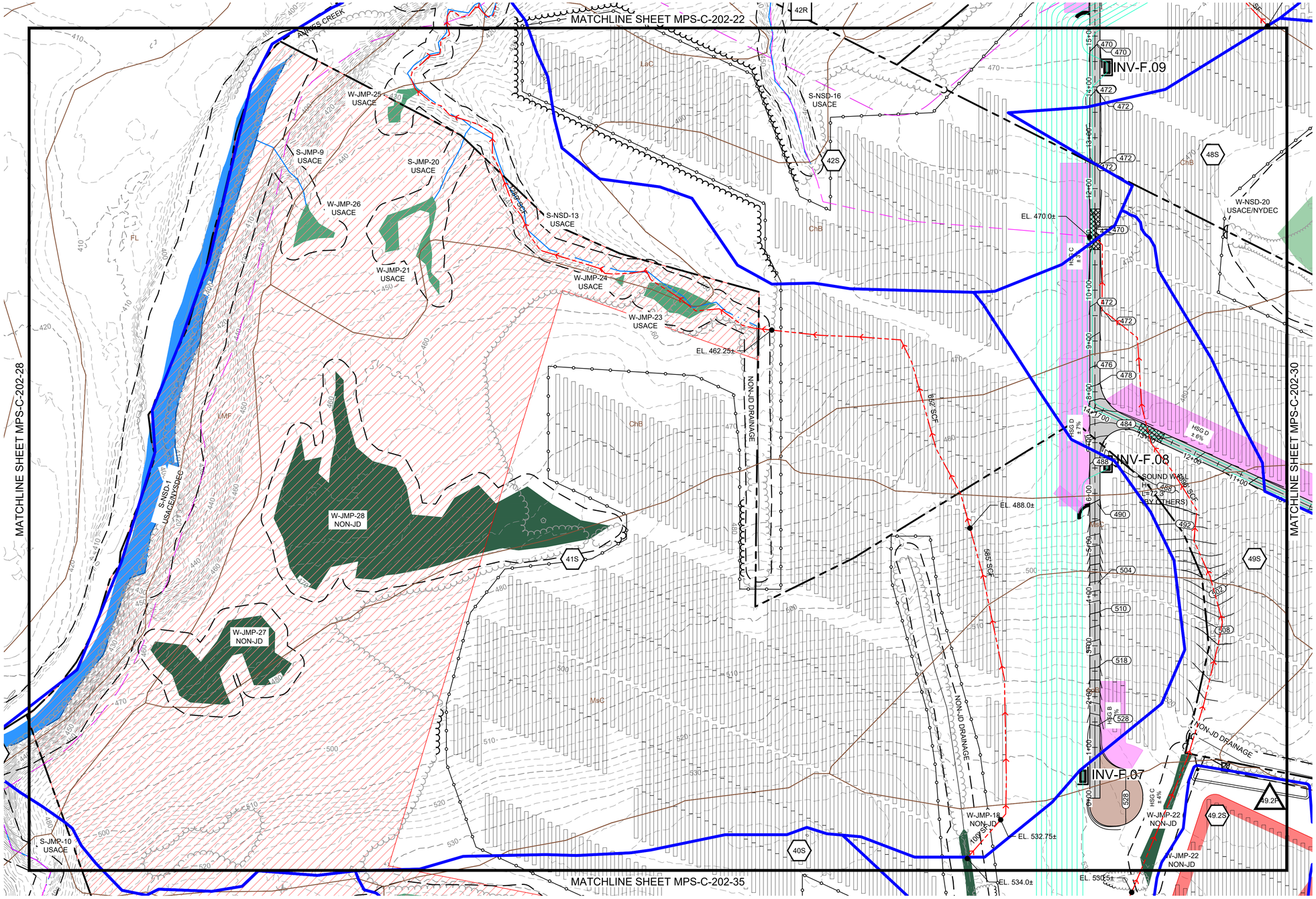
PMM	DESIGNED
PMM	DRAWN
PMM	CHECKED
-	APPROVED
-	REVIEW 1
-	REVIEW 2
03/01/2023	DATE
1" = 100'	SCALE

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

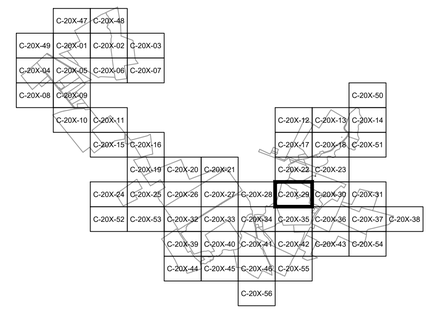
MPS-C-202-28

REV. A



LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

Dig Safely. Do the Right Call811 before you dig

PRELIMINARY

NOT FOR CONSTRUCTION

TRC

249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-29

REV. A

MATCHLINE SHEET MPS-C-202-23

MATCHLINE SHEET MPS-C-202-29

MATCHLINE SHEET MPS-C-202-31

MATCHLINE SHEET MPS-C-202-36

SP48 EL. 428.0±

S-NSD-14 USACE

EL. 454.0±

1092' CF

W-NSD-20 USACE/NYDEC

48S

511' SCF

EL. 474.0±

W-NSD-20 USACE/NYDEC

W-NSD-20 USACE/NYDEC

ARNOLDSVILLE ROAD

EL. 442.0±

S-JMP-13 USACE

144' SCF

EL. 448.0± W-JMP-14 NON-JD

SP51

392' SCF

34" PC EL. 460.0±

EL. 462.0±

162' SCF

34" PC EL. 468.0±

EL. 470.0±

S-JMP-11 USACE

51S

543' SCF

EL. 495.0±

1142' SCF

EL. 500.0±

6+00

2+00

4+00

5+30

TR-11 335'x2'x2'

NON-JD DRAINAGE

472' SCF

49S

HSG B ± 6%

HSG C ± 10%

HSG D ± 6%

ChB

Ma

AnB

PaC

ApB

PaB

RhB

MsC

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
C-20X-10 C-20X-11
C-20X-15 C-20X-16
C-20X-19 C-20X-20 C-20X-21
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34
C-20X-39 C-20X-40 C-20X-41
C-20X-44 C-20X-45 C-20X-46
C-20X-56
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23
C-20X-29 C-20X-30 C-20X-31
C-20X-35 C-20X-36 C-20X-37 C-20X-38
C-20X-42 C-20X-43 C-20X-54
C-20X-55

N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	01/15/2024	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

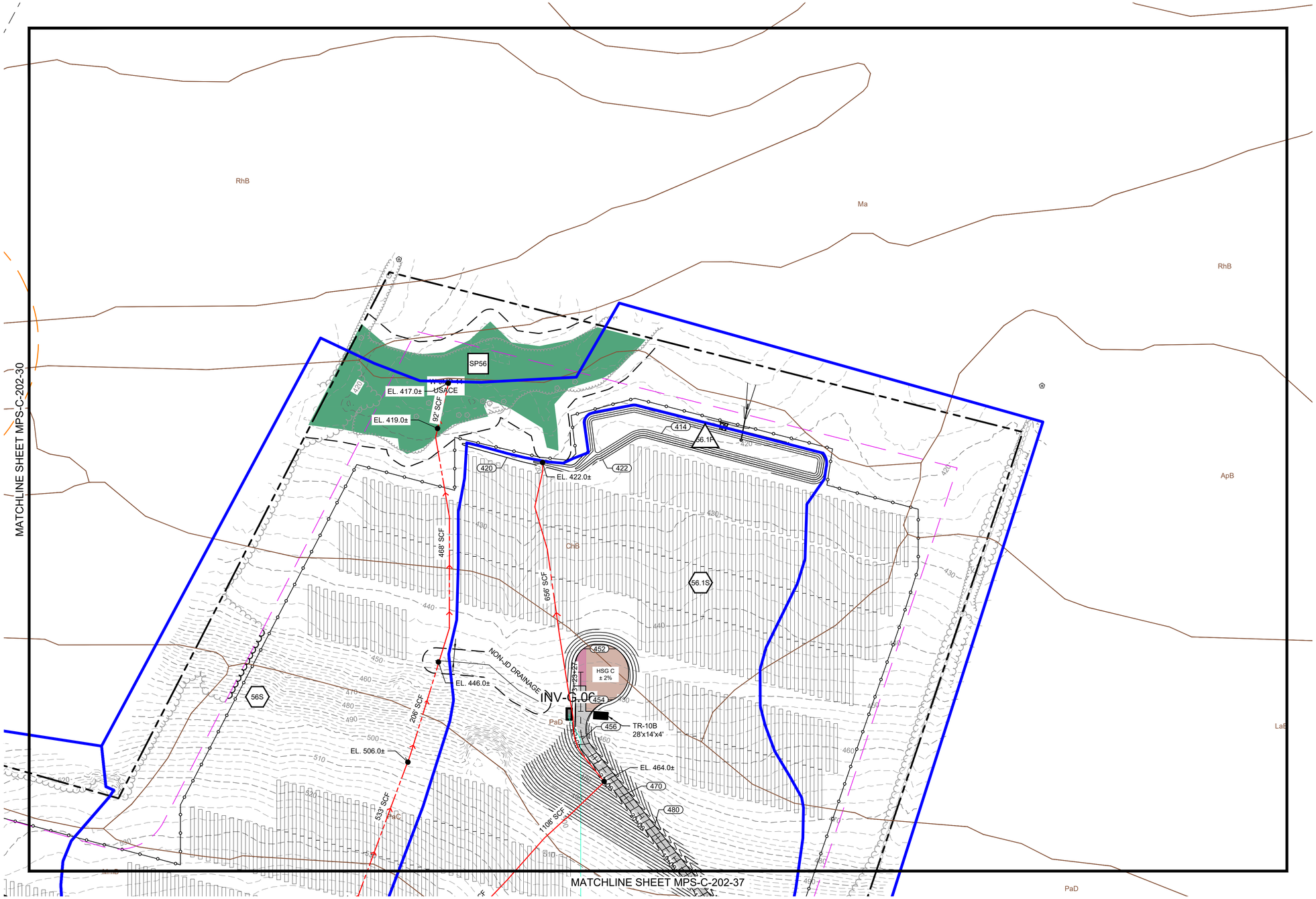
MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

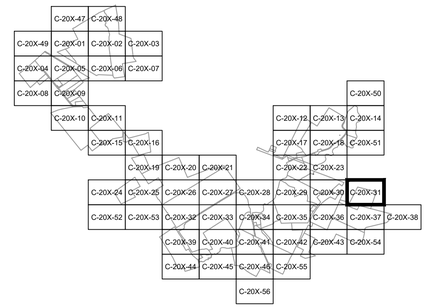
03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-30

REV. A





REFERENCE ITEMS

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-31

REV. A

MATCHLINE SHEET MPS-C-202-26

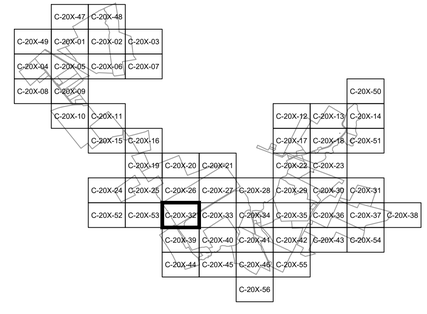
MATCHLINE SHEET MPS-C-202-53

MATCHLINE SHEET MPS-C-202-33

MATCHLINE SHEET MPS-C-202-39

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-32

REV. A

MATCHLINE SHEET MPS-C-202-27

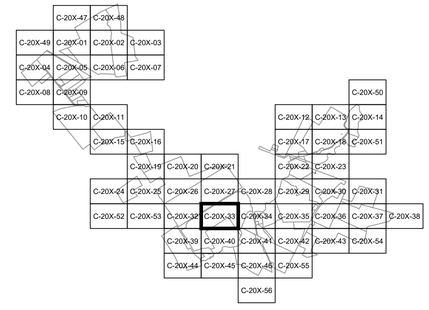
MATCHLINE SHEET MPS-C-202-32

MATCHLINE SHEET MPS-C-202-34

MATCHLINE SHEET MPS-C-202-40

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

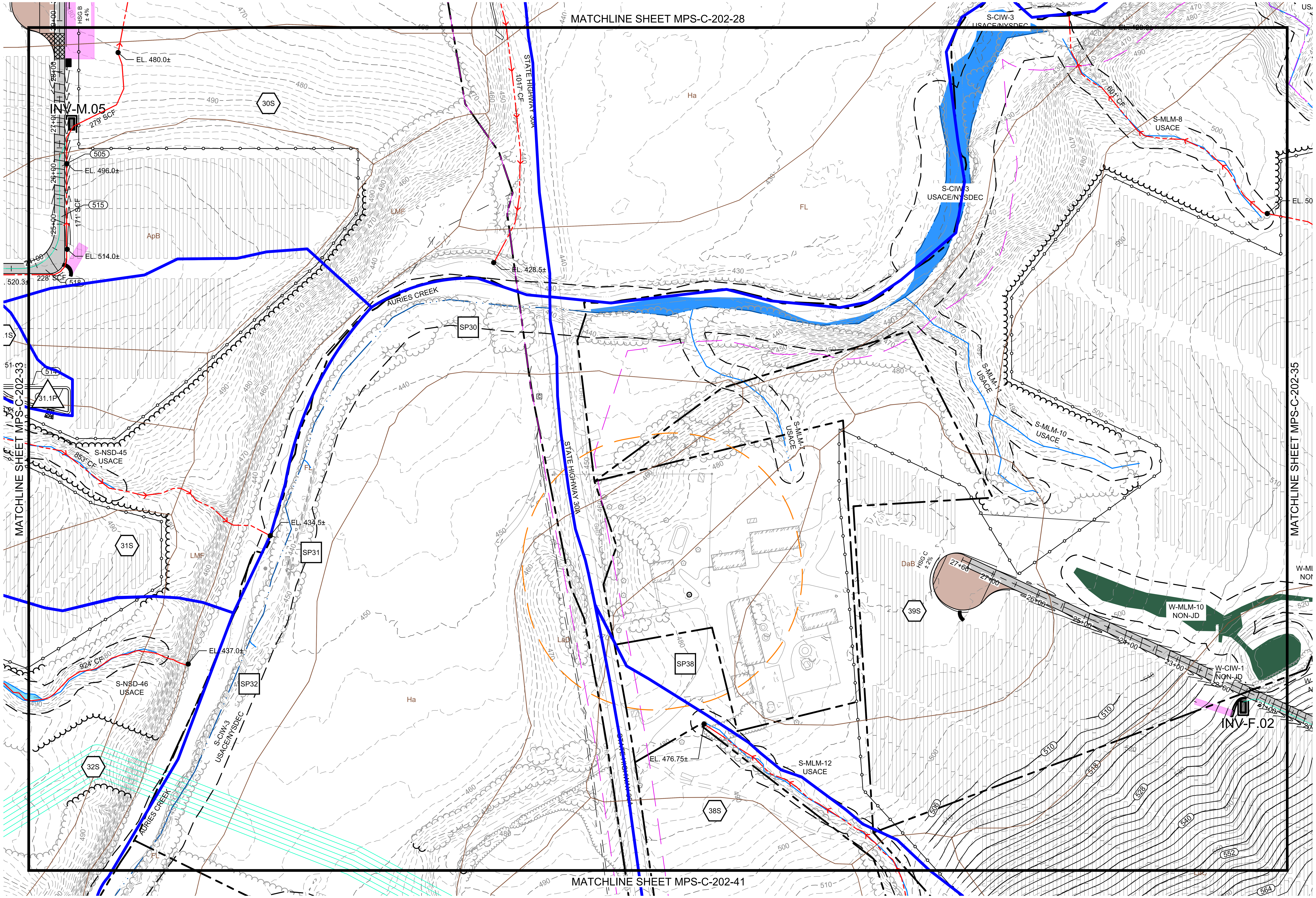
PMM	DESIGNED
PMM	DRAWN
PMM	CHECKED
-	APPROVED
-	REVIEW 1
-	REVIEW 2
03/01/2023	DATE
1" = 100'	SCALE

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

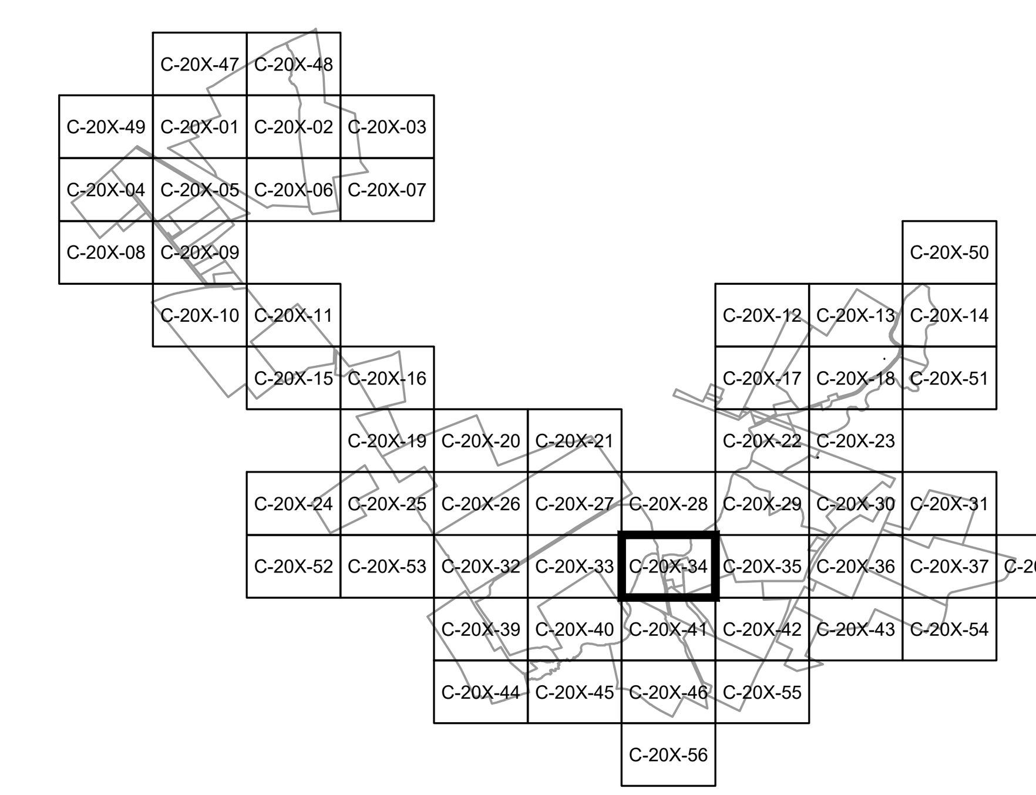
MPS-C-202-33

REV. A



LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

REFERENCE ITEMS	

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-

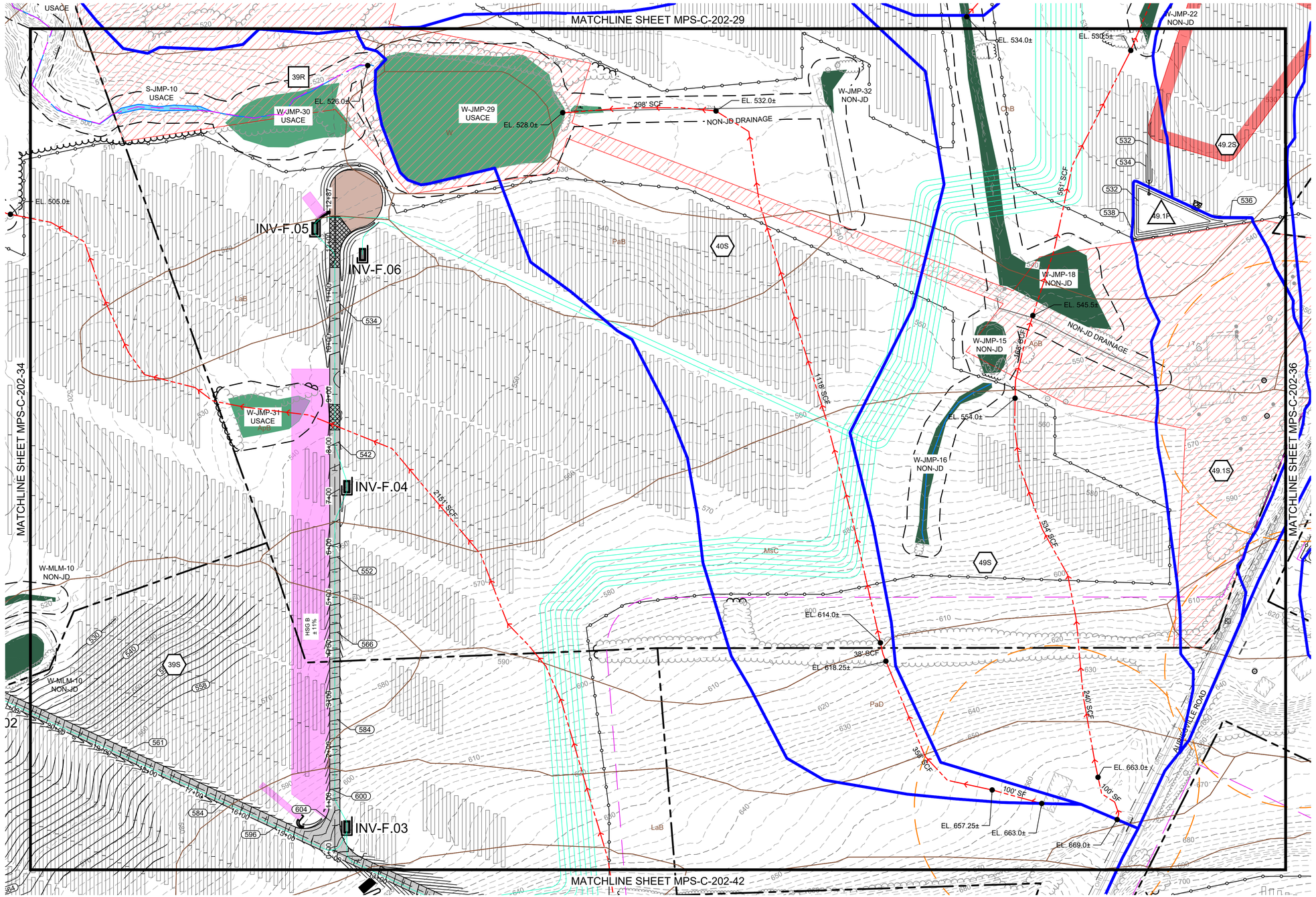
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

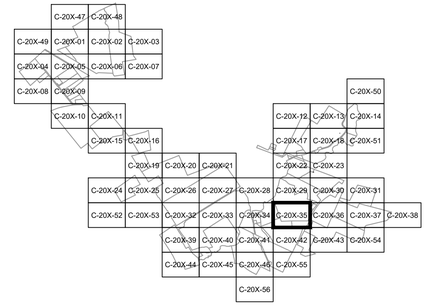
MPS-C-202-34

REV. A



LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

Dig • Safely. Know what's Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

REFERENCE ITEMS

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-35

REV. A

MATCHLINE SHEET MPS-C-202-30

MATCHLINE SHEET MPS-C-202-35

MATCHLINE SHEET MPS-C-202-37

MATCHLINE SHEET MPS-C-202-43

INV-G.05

INV-G.02

INV-G.10

INV-G.03

EL. 545.0±

EL. 551.75±

EL. 593.0±

EL. 604.0±

EL. 618.0±

EL. 625.0±

EL. 622.0±

EL. 617.0±

EL. 681.0±

EL. 688.3±

EL. 602.0±

1142' SCF

1472' SCF

513' SCF

106' SCF

100' SF

591' SCF

334' SCF

964' SCF

1511' SCF

HSG B ± 10%

HSG C ± 8%

HSG C ± 6%

HSG B ± 12%

HSG B ± 5%

HSG B ± 9%

NON-JD DRAINAGE

48S

49S

51S

51.1S

53S

54S

ChB

LaC

HA

ApB

MsC

PaD

PaB

AZF

LeB

AMESVILLE ROAD

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
C-20X-10 C-20X-11
C-20X-15 C-20X-16
C-20X-19 C-20X-20 C-20X-21
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28 C-20X-29 C-20X-30 C-20X-31
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34 C-20X-35 C-20X-36 C-20X-37 C-20X-38
C-20X-39 C-20X-40 C-20X-41 C-20X-42 C-20X-43 C-20X-54
C-20X-44 C-20X-45 C-20X-46 C-20X-55
C-20X-56
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

N

100 0 100 200 FT

SCALE: 1" = 100'

Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-36

REV. A

MATCHLINE SHEET MPS-C-202-31

MATCHLINE SHEET MPS-C-202-36

MATCHLINE SHEET MPS-C-202-38

MATCHLINE SHEET MPS-C-202-54

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

INV-G.09

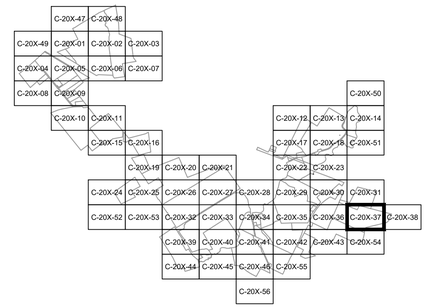
INV-G.07

INV-G.08

W-JMP-9
NON-JD

W-JMP-10
NON-JD

EXECUTION ROAD



N

100 0 100 200 FT

SCALE: 1" = 100'

Dig Safely. New York. Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

REFERENCE ITEMS

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

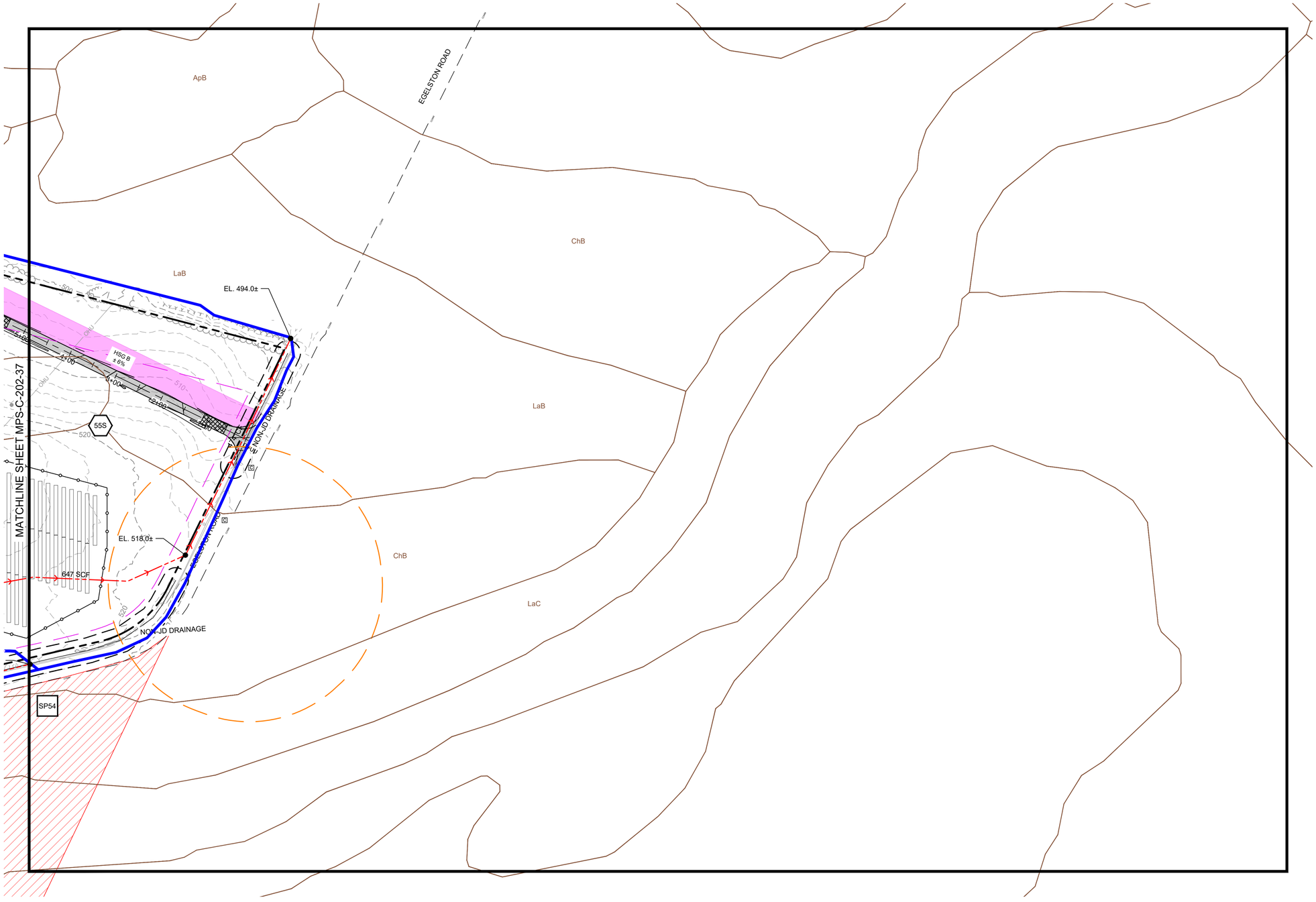
MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

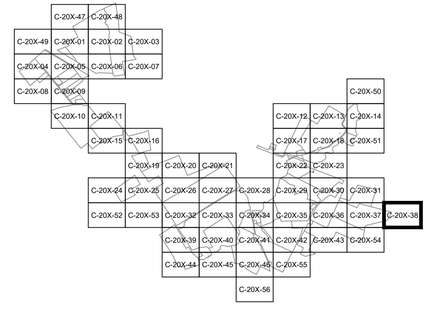
MPS-C-202-37

REV. A



LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

Call 811 Before You Dig

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-38

REV. A

MATCHLINE SHEET MPS-C-202-32

MATCHLINE SHEET MPS-C-202-40

MATCHLINE SHEET MPS-C-202-44

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

N

100 0 100 200 FT

SCALE: 1" = 100'

Dig Safely. New York Call 811 before you dig

PRELIMINARY

NOT FOR CONSTRUCTION

TRC

249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-39

REV. A

MATCHLINE SHEET MPS-C-202-33

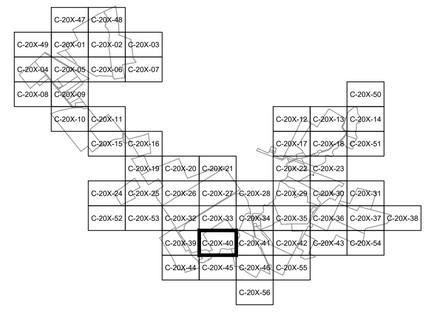
MATCHLINE SHEET MPS-C-202-39

MATCHLINE SHEET MPS-C-202-41

MATCHLINE SHEET MPS-C-202-45

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

Call 811 before you dig

REFERENCE ITEMS

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

PMM DESIGNED
PMM DRAWN
PMM CHECKED
APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-40

REV. A

MATCHLINE SHEET MPS-C-202-34

MATCHLINE SHEET MPS-C-202-40

MATCHLINE SHEET MPS-C-202-42

MATCHLINE SHEET MPS-C-202-46

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

32S
33S
36S
37S
38S
39S
S-CIW-2 USACE
W-CIW-5 USACE
S-CIW-3
AURIES CREEK
SP33
EL. 447.0±
SP36
EL. 448.0±
S-CIW-6 USACE
S-CIW-7 USACE
860' CF
S-CIW-8 USACE
W-CIW-6 USACE
S-CIW-4 USACE
S-CIW-9 USACE
S-CIW-5 USACE
1036' SCF
EL. 568.75±
SP37
EL. 568.3±
S-MLM-12 USACE
187' SCF
731' CF
LaC
LaB
DaB
Te
SOUND WALL
H=
L=52.2'
HSC C
5.5%

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
C-20X-10 C-20X-11
C-20X-15 C-20X-16
C-20X-19 C-20X-20 C-20X-21
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28 C-20X-29 C-20X-30 C-20X-31
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34 C-20X-35 C-20X-36 C-20X-37 C-20X-38
C-20X-39 C-20X-40 C-20X-41 C-20X-42 C-20X-43 C-20X-54
C-20X-44 C-20X-45 C-20X-46 C-20X-55
C-20X-56
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23

N

100 0 100 200 FT

SCALE: 1" = 100'

Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

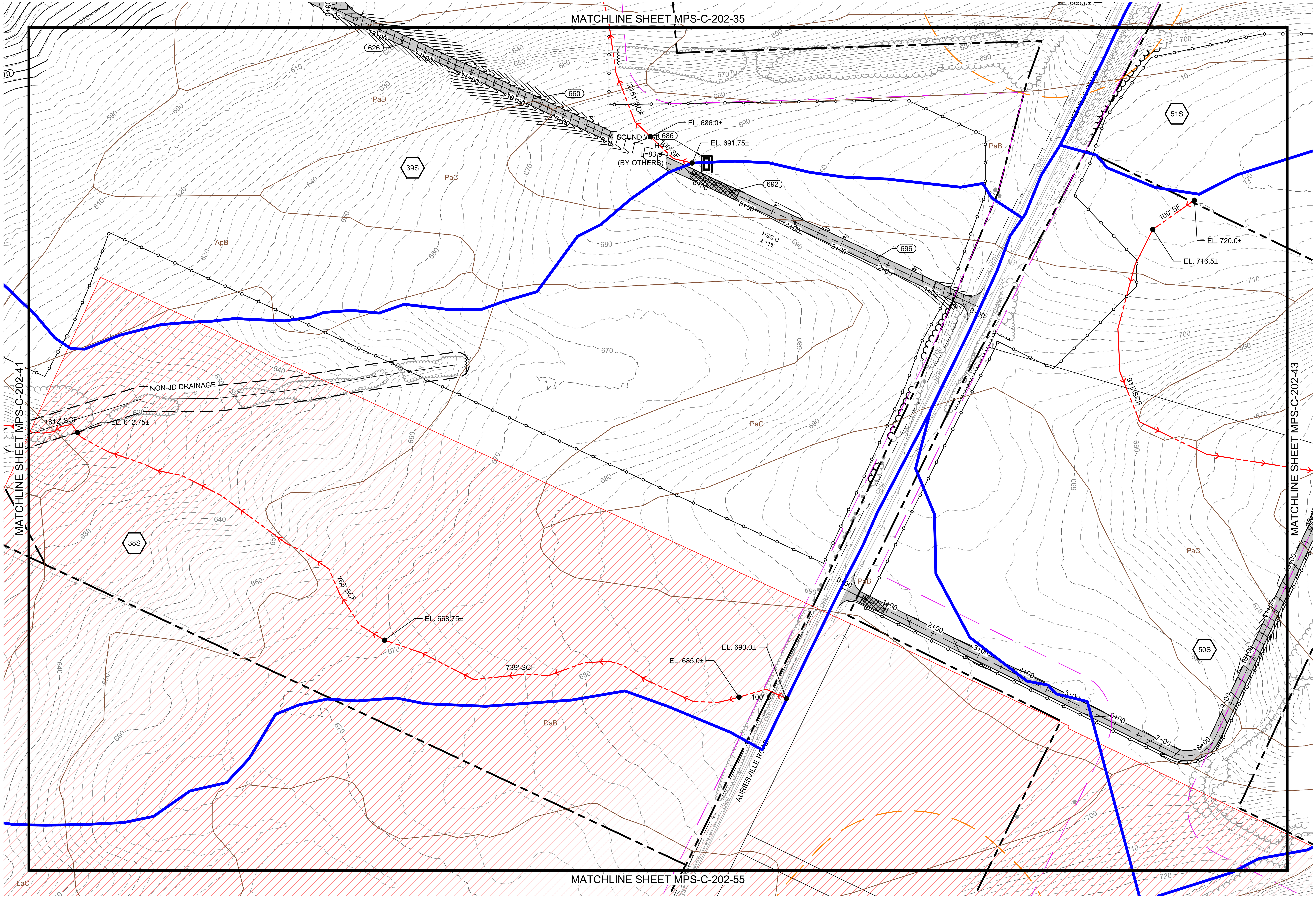
MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

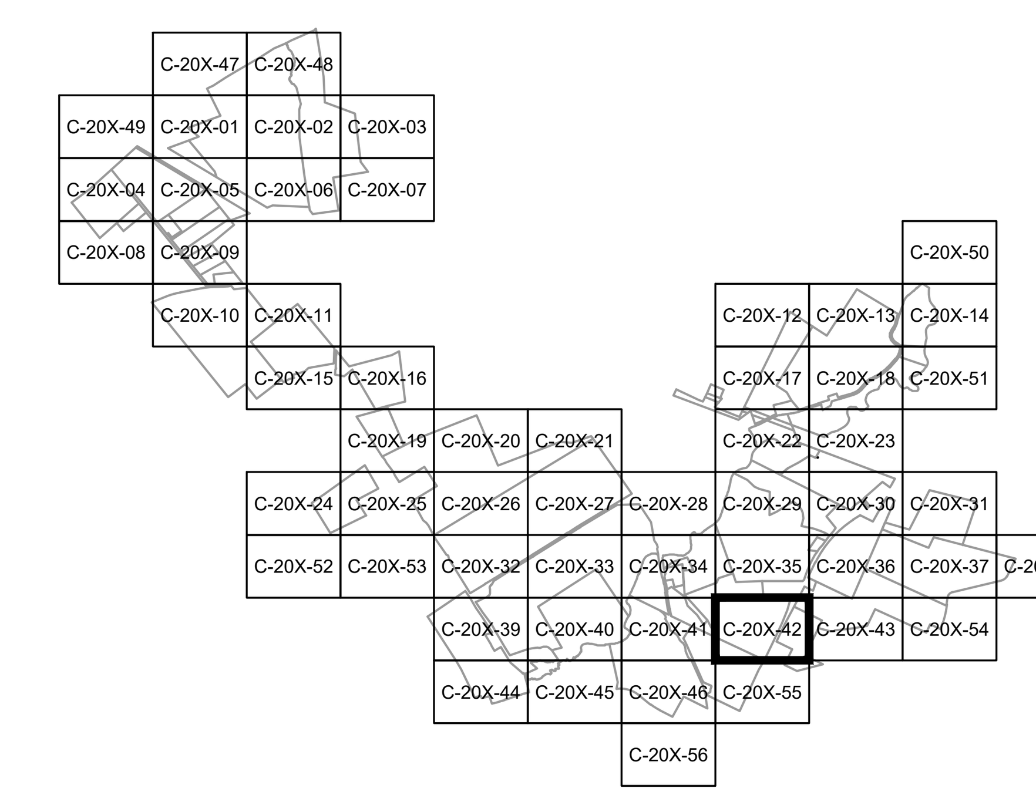
MPS-C-202-41

REV. A



LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

Call 811 before you dig

REFERENCE ITEMS

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

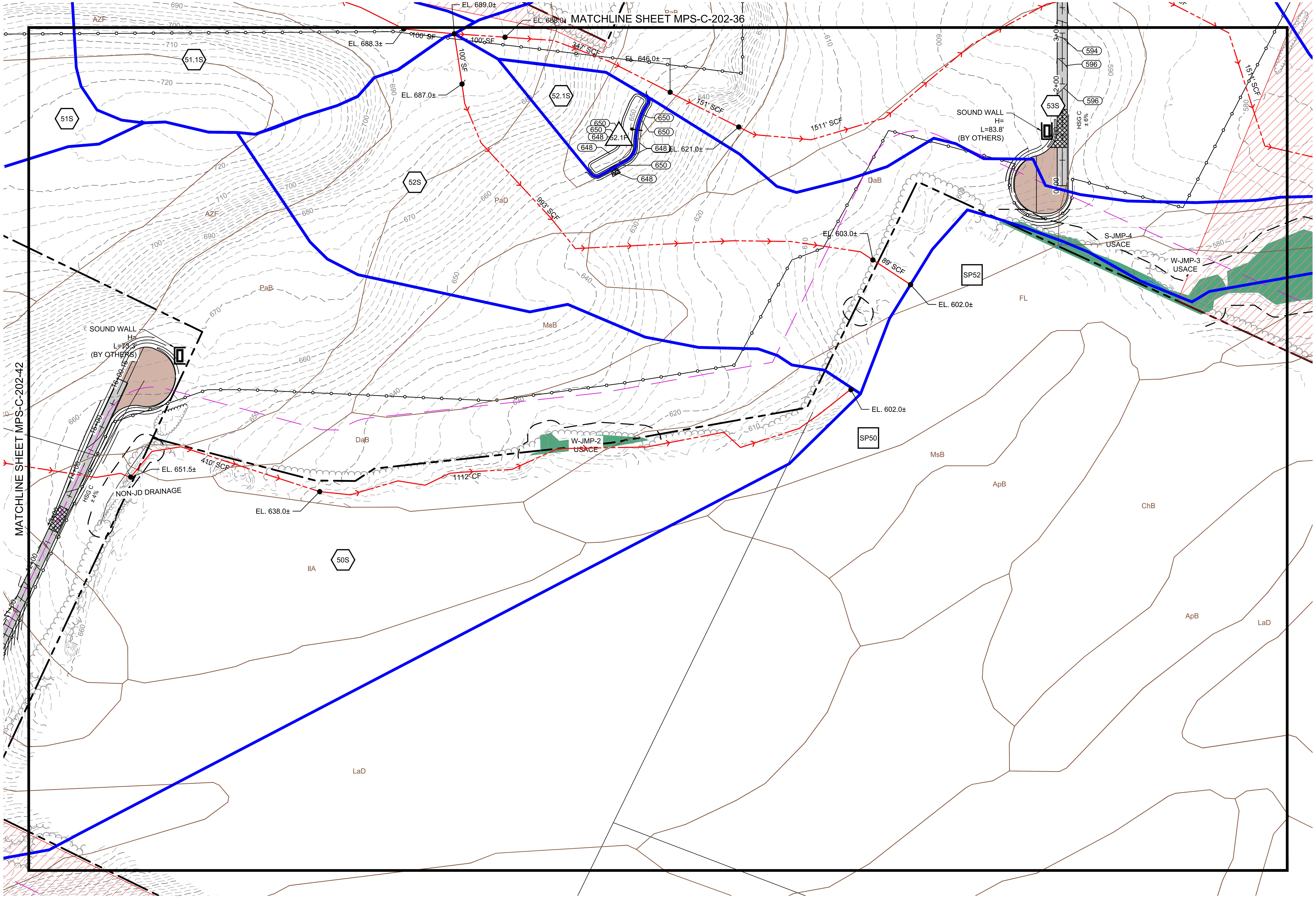
PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

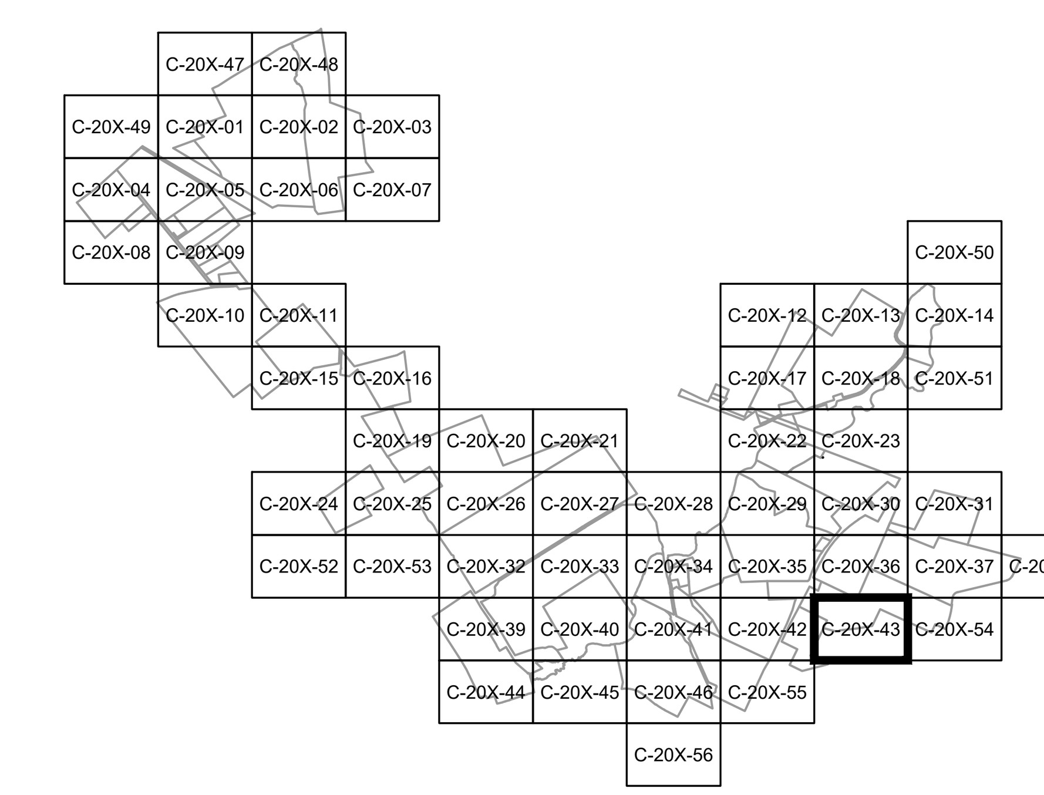
MPS-C-202-42

REV. A



LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

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PRELIMINARY
NOT FOR CONSTRUCTION

REFERENCE ITEMS	

TRC 249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-43

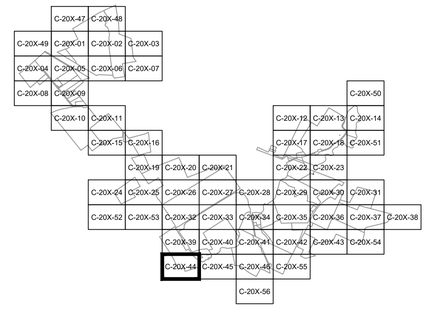
REV. A

MATCHLINE SHEET MPS-C-202-39

MATCHLINE SHEET MPS-C-202-45

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



N

100 0 100 200 FT

SCALE: 1" = 100'

Dig Safely. Know what's Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

REFERENCE ITEMS

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-44

REV. A

MATCHLINE SHEET MPS-C-202-40

MATCHLINE SHEET MPS-C-202-44

MATCHLINE SHEET MPS-C-202-46

33R

33S

35S

36S

SP35

1P

MsB

MsC

MsD

LaB

Pr

ApB

LMF

FL

VAN EPPS ROAD

NON-JD DRAINAGE

FISHER ROAD

EL. 497.0±

7.1 CF

S-CIW-10 USACE

S-CIW-11 USACE

S-CIW-12 USACE

S-CIW-3 USACE/NYSDEC

W-KCF-1 USACE

S-KCF-1 USACE

S-KCF-2 USACE

S-KCF-3 USACE

W-KCF-2 NON-JD

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
C-20X-10 C-20X-11
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C-20X-19 C-20X-20 C-20X-21
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34
C-20X-39 C-20X-40 C-20X-41
C-20X-44 C-20X-45 C-20X-46
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23
C-20X-29 C-20X-30 C-20X-31
C-20X-35 C-20X-36 C-20X-37 C-20X-38
C-20X-42 C-20X-43 C-20X-54
C-20X-55
C-20X-56

N

100 0 100 200 FT

SCALE: 1" = 100'

Dig Safely. New York Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2
03/01/2023 DATE
1" = 100' SCALE

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

MPS-C-202-45

REV. A

MATCHLINE SHEET MPS-C-202-41

MATCHLINE SHEET MPS-C-202-45

MATCHLINE SHEET MPS-C-202-56

INV-E.03

INV-E.02

INV-E.01

36S

35S

37S

EL. 614.5±

EL. 620.0±

EL. 602.0±

EL. 610.0±

EL. 592.0±

EL. 570.0±

EL. 588.0±

EL. 652.0±

EL. 660.5±

EL. 661.0±

EL. 660.0±

EL. 664.5±

100' SF

1170' SCF

1018' SCF

435' SCF

393' SCF

S-CIW-1 USACE

S-CIW-2 USACE

S-CIW-10 USACE

S-CIW-11 USACE

S-CIW-12 USACE

W-KCF-1 USACE

NON-JD DRAINAGE

PIONEER ROAD

STATE HIGHWAY 30A

LaB

ApB

N

100 0 100 200 FT

SCALE: 1" = 100'

Dial 811 Before You Dig Call 811 before you dig

PRELIMINARY

NOT FOR CONSTRUCTION

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
C-20X-10 C-20X-11
C-20X-15 C-20X-16
C-20X-19 C-20X-20 C-20X-21
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28 C-20X-29 C-20X-30 C-20X-31
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34 C-20X-35 C-20X-36 C-20X-37 C-20X-38
C-20X-39 C-20X-40 C-20X-41 C-20X-42 C-20X-43 C-20X-54
C-20X-44 C-20X-45 C-20X-46 C-20X-55
C-20X-56
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

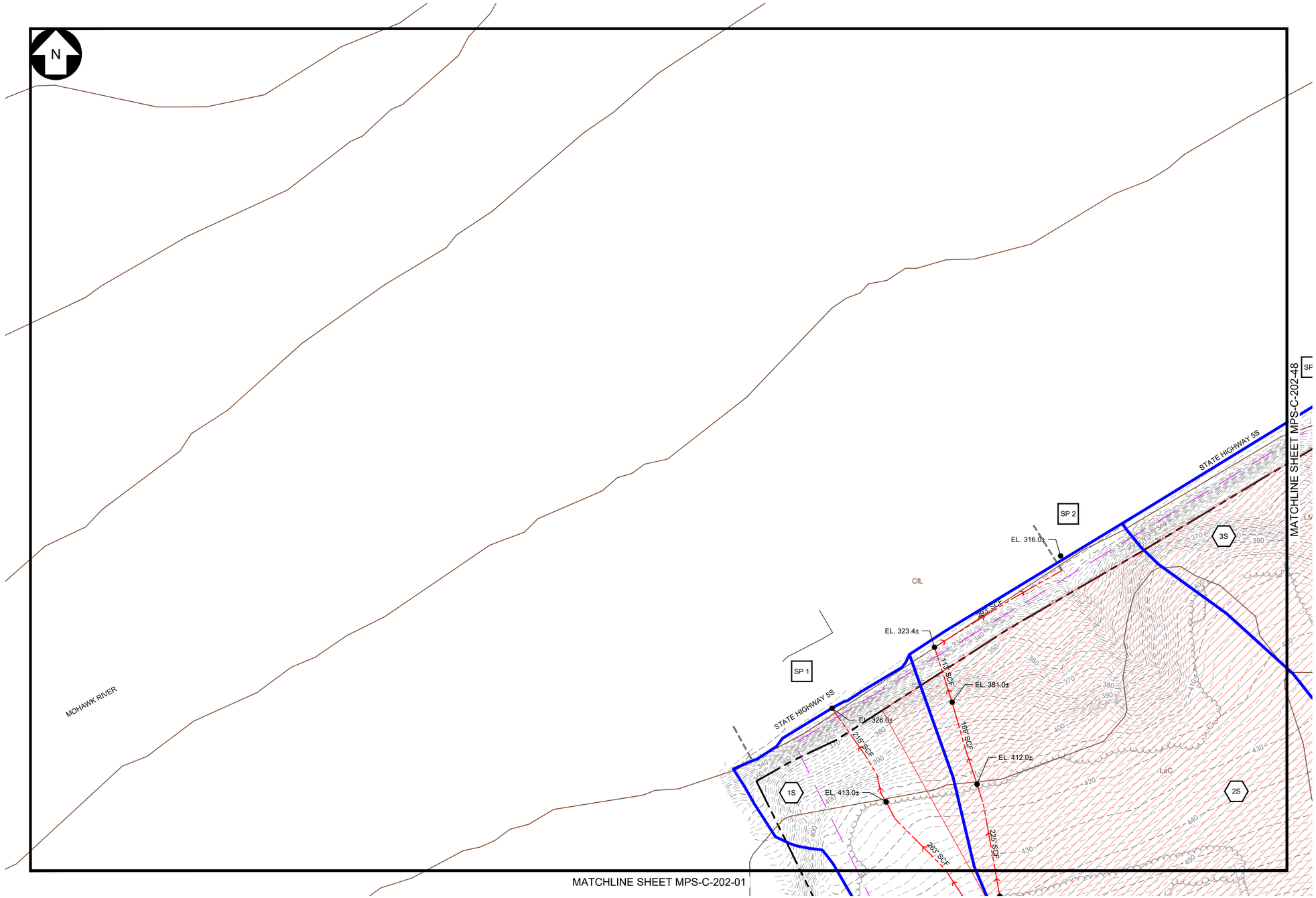
MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

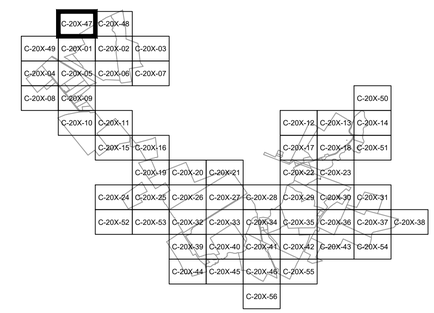
MPS-C-202-46

REV. A



LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

Call 811 before you dig

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

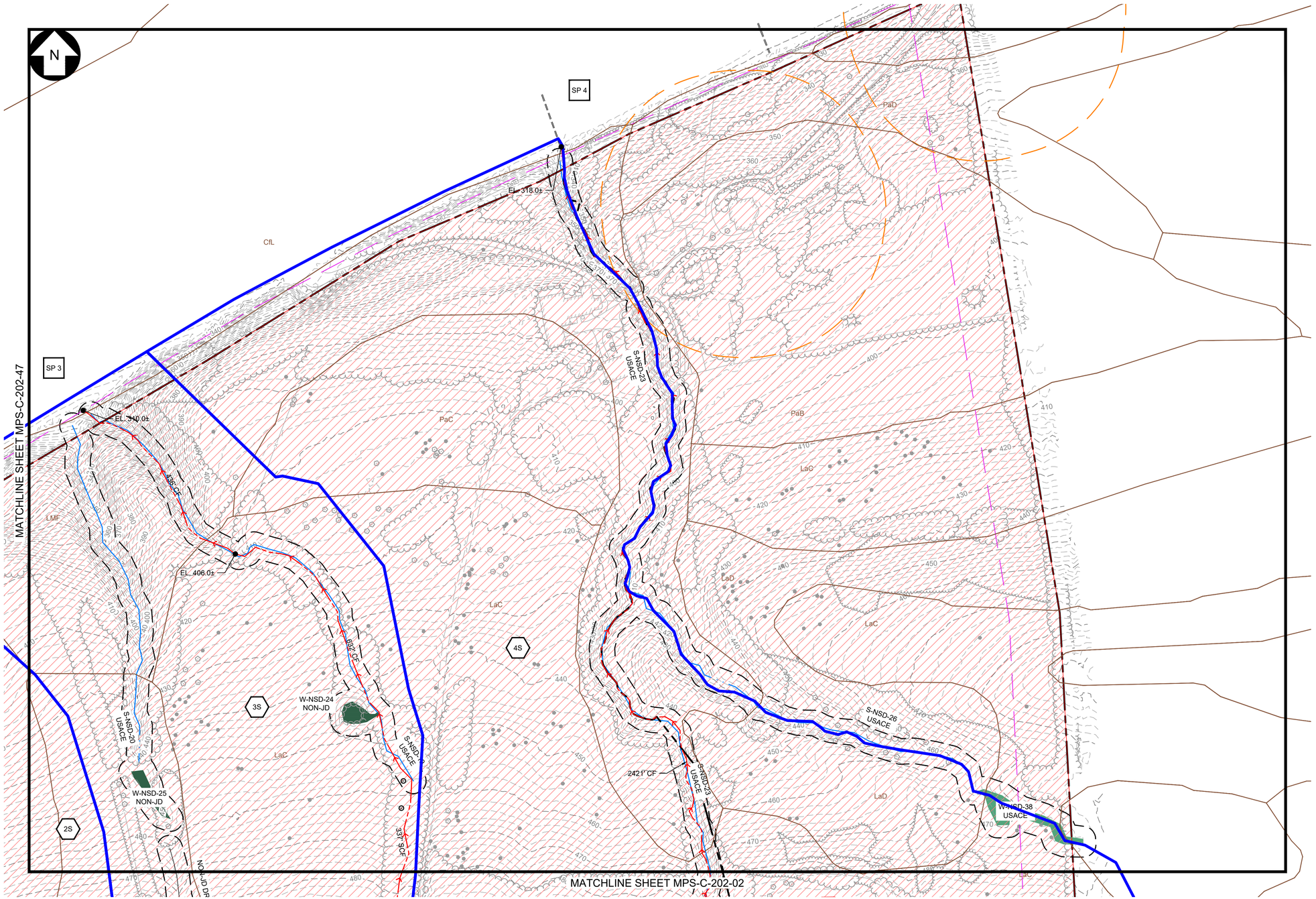
MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

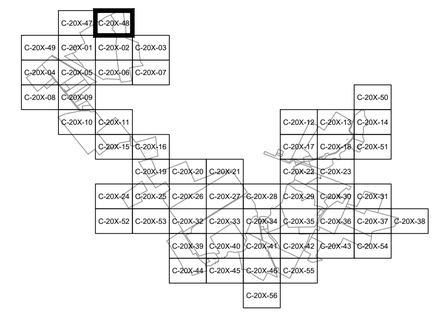
MPS-C-202-47

REV. A



LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

Dig Safely. New York Call 811 before you dig

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-48

REV. A

N

MATCHLINE SHEET MPS-C-202-01

MATCHLINE SHEET MPS-C-202-04

MOHAWK RIVER

MsC

LMF

SP 9

9S

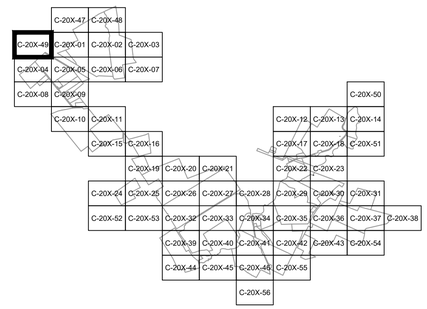
S-NSD-54
USACE

S-NSD-54
USACE

EL. 436.0±

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



100 0 100 200 FT

SCALE: 1" = 100'

Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

REFERENCE ITEMS

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

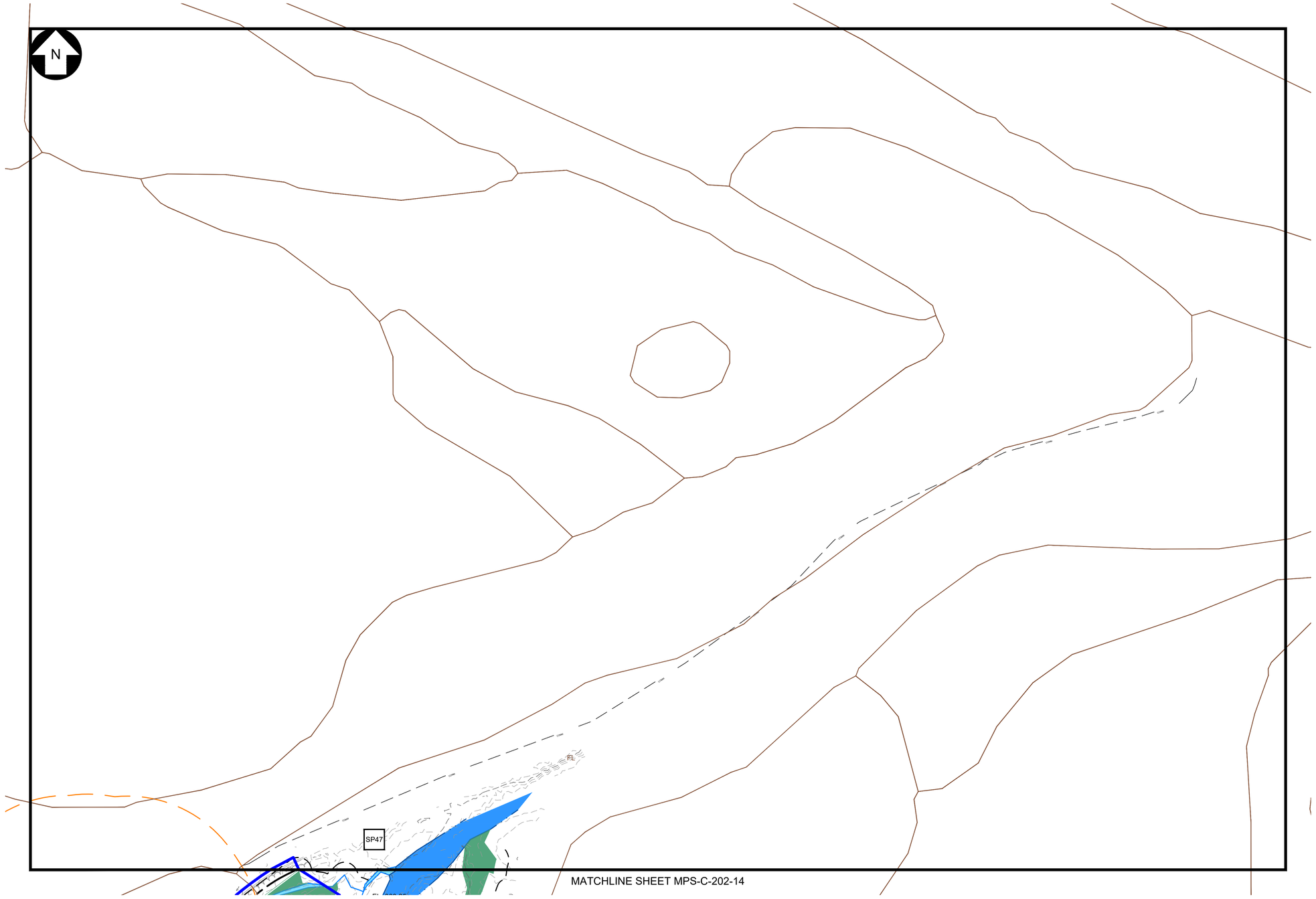
PMM	DESIGNED
PMM	DRAWN
PMM	CHECKED
-	APPROVED
-	REVIEW 1
-	REVIEW 2
03/01/2023	DATE
1" = 100'	SCALE

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

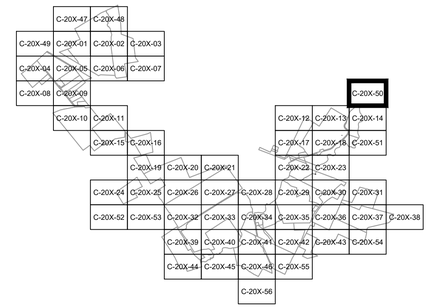
MPS-C-202-49

REV. A



LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



100 0 100 200 FT

SCALE: 1" = 100'

Dig Safely. New Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2
03/01/2023 DATE
1" = 100' SCALE

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

MPS-C-202-50

REV. A

MATCHLINE SHEET MPS-C-202-14

MATCHLINE SHEET MPS-C-202-18

N

S-NSD-1
USACE/NYSDEC

S-NSD-1
USACE/NYSDEC

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

100 0 100 200 FT

SCALE: 1" = 100'

Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2
03/01/2023 DATE
1" = 100' SCALE

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

MPS-C-202-51

REV. A

MATCHLINE SHEET MPS-C-202-24

MATCHLINE SHEET MPS-C-202-53

N

ApB

LaC

LaB

MmB

17S

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
C-20X-10 C-20X-11
C-20X-15 C-20X-16
C-20X-19 C-20X-20 C-20X-21
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34
C-20X-39 C-20X-40 C-20X-41
C-20X-44 C-20X-45 C-20X-46
C-20X-56
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23
C-20X-29 C-20X-30 C-20X-31
C-20X-35 C-20X-36 C-20X-37 C-20X-38
C-20X-42 C-20X-43 C-20X-54
C-20X-55

100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

Dig Safely. Know what's Call 811 before you dig

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-52

REV. A

MATCHLINE SHEET MPS-C-202-25

MATCHLINE SHEET MPS-C-202-52

MATCHLINE SHEET MPS-C-202-32

N

681' SCF

100' SF

EL. 668.85±

EL. 672.95±

17S

LaC

MsB

MsD

MsC

ApB

RhB

Ma

ChA

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
C-20X-10 C-20X-11
C-20X-15 C-20X-16
C-20X-19 C-20X-20 C-20X-21
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28 C-20X-29 C-20X-30 C-20X-31
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34 C-20X-35 C-20X-36 C-20X-37 C-20X-38
C-20X-39 C-20X-40 C-20X-41 C-20X-42 C-20X-43 C-20X-54
C-20X-44 C-20X-45 C-20X-46 C-20X-55
C-20X-56

100 0 100 200 FT

SCALE: 1" = 100'

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PRELIMINARY
NOT FOR CONSTRUCTION

REFERENCE ITEMS

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-53

REV. A

MATCHLINE SHEET MPS-C-202-37

MATCHLINE SHEET MPS-C-202-43

N

EL. 574.0±
1511' SCF
570
LaC
446' CF
560
FL
EL. 554.0±
54S
53S
52S
SP53
W-JMP-5
USACE
W-JMP-5
USACE
570
560
560
LaC
ApB
FL
DaB
W
DaB
aD
LaD
ApB

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09
C-20X-10 C-20X-11
C-20X-15 C-20X-16
C-20X-19 C-20X-20 C-20X-21
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34
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C-20X-44 C-20X-45 C-20X-46
C-20X-56
C-20X-50
C-20X-12 C-20X-13 C-20X-14
C-20X-17 C-20X-18 C-20X-51
C-20X-22 C-20X-23
C-20X-29 C-20X-30 C-20X-31
C-20X-35 C-20X-36 C-20X-37 C-20X-38
C-20X-42 C-20X-43 C-20X-54
C-20X-55

100 0 100 200 FT
SCALE: 1" = 100'

Dig Safely. New York. Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

REFERENCE ITEMS

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REV	DESCRIPTION	DATE	DES	CHK	APP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
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GLEN NEW YORK

03/01/2023 DATE
1" = 100' SCALE

TRC

MPS-C-202-54

REV. A

MATCHLINE SHEET MPS-C-202-42

MATCHLINE SHEET MPS-C-202-46

N

LaC
ChA
ChB
Ma
W
PaC
PaB
CFL

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	

C-20X-47 C-20X-48
C-20X-49 C-20X-01 C-20X-02 C-20X-03
C-20X-04 C-20X-05 C-20X-06 C-20X-07
C-20X-08 C-20X-09 C-20X-50
C-20X-10 C-20X-11 C-20X-12 C-20X-13 C-20X-14
C-20X-15 C-20X-16 C-20X-17 C-20X-18 C-20X-51
C-20X-19 C-20X-20 C-20X-21 C-20X-22 C-20X-23
C-20X-24 C-20X-25 C-20X-26 C-20X-27 C-20X-28 C-20X-29 C-20X-30 C-20X-31
C-20X-52 C-20X-53 C-20X-32 C-20X-33 C-20X-34 C-20X-35 C-20X-36 C-20X-37 C-20X-38
C-20X-39 C-20X-40 C-20X-41 C-20X-42 C-20X-43 C-20X-54
C-20X-44 C-20X-45 C-20X-46 C-20X-55
C-20X-56

100 0 100 200 FT

SCALE: 1" = 100'

Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
- REVIEW 2
03/01/2023 DATE
1" = 100' SCALE

MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

MPS-C-202-55

REV. A

MATCHLINE SHEET MPS-C-202-46

W-KCF-1

S-CIW-12

W-KCF-1
USACE

35S

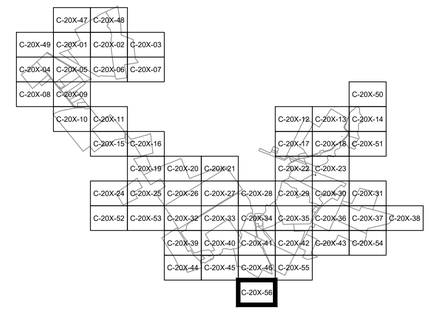
DaB

ChB

ApB

LEGEND

SUBCATCHMENT BOUNDARY	
TIME OF CONCENTRATION FLOW LINE	
REACH	
SHEET FLOW	100' SF
SHALLOW CONCENTRATED FLOW	100' SCF
CHANNEL FLOW	100' CF
SPOT ELEVATION	EL. 520.0±
REACH ID	1R
SUBCATCHMENT ID	1S
POND ID	1P
STUDY POINT ID	SP1
SOILS BOUNDARY	



100 0 100 200 FT

SCALE: 1" = 100'

PRELIMINARY
NOT FOR CONSTRUCTION

Call 811 before you dig

TRC
249 Western Avenue
Augusta, ME 04330

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	A	ISSUED FOR 94-C	10/20/2023	CMW	PMM	PMM

PMM DESIGNED
PMM DRAWN
PMM CHECKED
- APPROVED
- REVIEW 1
REVIEW 2
03/01/2023 DATE
1" = 100' SCALE

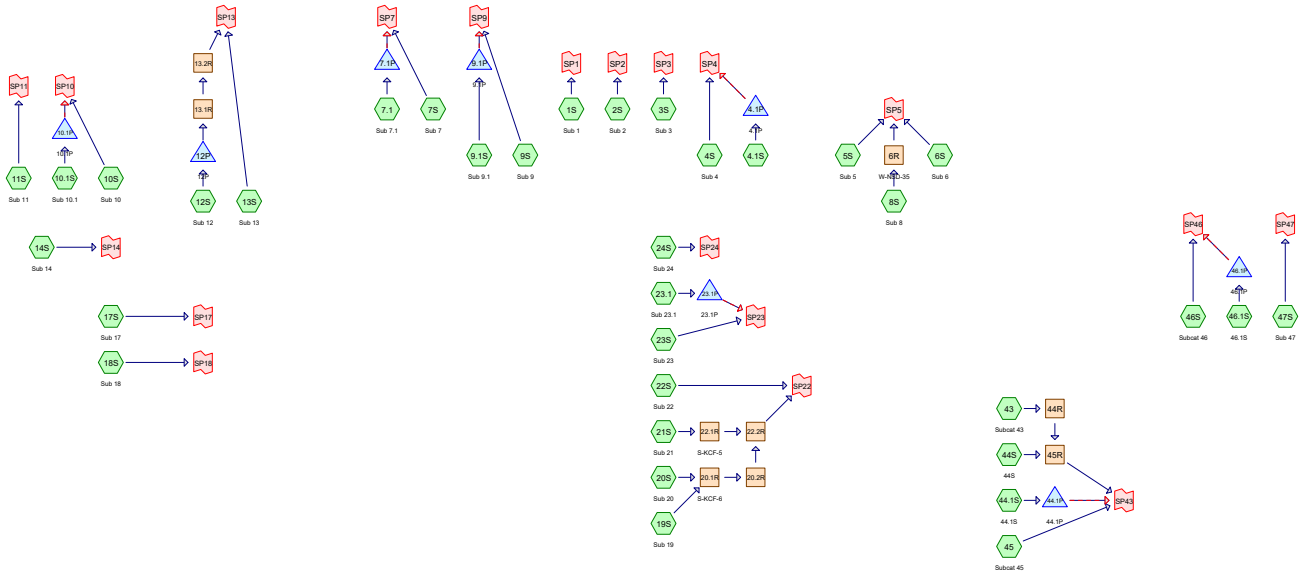
MILL POINT SOLAR PROJECT
CONNECTGEN, LLC
POST-DEVELOPMENT STORMWATER PLAN
-
GLEN NEW YORK

TRC

MPS-C-202-56

REV. A

Appendix L – Post-Development HydroCAD Model



Subcat Reach Pond Link

Routing Diagram for Mill Pt Post 1
Prepared by TRC Companies, Printed 1/15/2024

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type II 24-hr		Default	24.00	1	2.17	2
2	10-year	Type II 24-hr		Default	24.00	1	3.50	2
3	100-year	Type II 24-hr		Default	24.00	1	5.72	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.498	39	>75% Grass cover, Good, HSG A (47S)
23.502	61	>75% Grass cover, Good, HSG B (9S, 10.1S, 10S, 11S, 17S, 20S, 21S, 23S, 24S, 47S)
16.502	74	>75% Grass cover, Good, HSG C (9.1S, 9S, 10.1S, 10S, 11S, 17S, 21S, 24S)
5.643	80	>75% Grass cover, Good, HSG D (10.1S, 10S, 14S, 17S)
0.802	30	Brush, Good, HSG A (46.1S, 46S, 47S)
11.876	48	Brush, Good, HSG B (4S, 7S, 9S, 10S, 11S, 14S, 18S, 20S, 21S, 22S, 23S, 43, 45, 46S, 47S)
3.755	65	Brush, Good, HSG C (9.1S, 9S, 10.1S, 10S, 11S, 14S, 19S, 20S, 21S, 22S, 23S, 43, 45)
10.987	73	Brush, Good, HSG D (9S, 10S, 14S, 18S, 19S, 20S, 43)
3.877	96	Gravel (4.1S, 23.1, 44.1S, 44S, 46.1S, 46S)
1.452	96	Gravel Impervious (43)
0.100	96	Gravel road (18S)
1.316	96	Gravel surface (4S)
2.605	96	Gravel surface, HSG A (3S, 5S, 7S, 8S)
0.131	96	Gravel surface, HSG B (7.1)
15.200	96	Gravel surface, HSG D (9S, 10S, 11S, 12S, 13S, 17S, 19S, 20S, 21S, 22S, 24S, 47S)
23.090	30	Meadow, non-grazed, HSG A (2S, 3S, 4S, 43, 44S, 45, 46.1S, 46S, 47S)
388.495	58	Meadow, non-grazed, HSG B (1S, 2S, 3S, 4.1S, 4S, 5S, 6S, 7.1, 7S, 8S, 9S, 10.1S, 10S, 11S, 13S, 14S, 17S, 18S, 19S, 20S, 21S, 22S, 23.1, 23S, 24S, 43, 44S, 45, 46.1S, 46S, 47S)
348.889	71	Meadow, non-grazed, HSG C (3S, 4.1S, 4S, 5S, 6S, 8S, 9.1S, 9S, 10.1S, 10S, 11S, 13S, 14S, 17S, 18S, 19S, 20S, 21S, 22S, 23S, 24S, 43, 44.1S, 44S, 45)
73.491	78	Meadow, non-grazed, HSG D (7S, 8S, 9.1S, 9S, 14S, 17S, 18S, 19S, 20S, 21S, 22S, 23.1, 43, 44.1S, 44S, 45)
0.107	74	Pasture/grassland/range, Good, HSG C (7S)
0.090	80	Pasture/grassland/range, Good, HSG D (8S)
0.335	98	Pavement (18S)
0.807	98	Unconnected pavement, HSG D (12S, 13S, 22S, 47S)
0.259	98	Unconnected roofs (4S)
0.166	98	Unconnected roofs, HSG C (43, 45)
4.230	98	Unconnected roofs, HSG D (9S, 10S, 11S, 14S, 17S, 20S, 21S, 23S, 24S)
7.722	98	Water Surface, HSG D (9S, 10S, 11S, 12S, 19S, 20S, 21S)
20.918	30	Woods, Good, HSG A (43, 44S, 45, 46.1S, 46S, 47S)
105.782	55	Woods, Good, HSG B (1S, 2S, 3S, 4S, 5S, 6S, 7.1, 7S, 8S, 9S, 10S, 11S, 13S, 14S, 17S, 20S, 21S, 22S, 23S, 43, 44S, 45, 46.1S, 46S, 47S)
35.564	70	Woods, Good, HSG C (3S, 4S, 5S, 6S, 8S, 9S, 10S, 11S, 13S, 14S, 17S, 20S, 21S, 22S, 24S, 43, 44S, 45)
21.268	77	Woods, Good, HSG D (7S, 8S, 10S, 14S, 17S, 18S, 19S, 20S, 22S, 43, 44.1S, 44S, 45, 46S)

Area Listing (all nodes) (continued)

Area (acres)	CN	Description (subcatchment-numbers)
1,129.459	**64**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
47.913	HSG A	2S, 3S, 4S, 5S, 7S, 8S, 43, 44S, 45, 46.1S, 46S, 47S
529.787	HSG B	1S, 2S, 3S, 4.1S, 4S, 5S, 6S, 7.1, 7S, 8S, 9S, 10.1S, 10S, 11S, 13S, 14S, 17S, 18S, 19S, 20S, 21S, 22S, 23.1, 23S, 24S, 43, 44S, 45, 46.1S, 46S, 47S
404.983	HSG C	3S, 4.1S, 4S, 5S, 6S, 7S, 8S, 9.1S, 9S, 10.1S, 10S, 11S, 13S, 14S, 17S, 18S, 19S, 20S, 21S, 22S, 23S, 24S, 43, 44.1S, 44S, 45
139.438	HSG D	7S, 8S, 9.1S, 9S, 10.1S, 10S, 11S, 12S, 13S, 14S, 17S, 18S, 19S, 20S, 21S, 22S, 23.1, 23S, 24S, 43, 44.1S, 44S, 45, 46S, 47S
7.339	Other	4.1S, 4S, 18S, 23.1, 43, 44.1S, 44S, 46.1S, 46S
1,129.459		**TOTAL AREA**

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Sub 1 Runoff Area=5.786 ac 0.00% Impervious Runoff Depth=0.04"
Flow Length=1,005' Tc=13.1 min CN=56 Runoff=0.03 cfs 0.020 af

Subcatchment2S: Sub 2 Runoff Area=16.498 ac 0.00% Impervious Runoff Depth=0.04"
Flow Length=1,307' Tc=14.1 min CN=56 Runoff=0.07 cfs 0.058 af

Subcatchment3S: Sub 3 Runoff Area=33.979 ac 0.00% Impervious Runoff Depth=0.09"
Flow Length=2,507' Tc=25.3 min CN=60 Runoff=0.54 cfs 0.264 af

Subcatchment4.1S: Runoff Area=15.089 ac 0.00% Impervious Runoff Depth=0.25"
Tc=6.0 min CN=68 Runoff=4.79 cfs 0.320 af

Subcatchment4S: Sub 4 Runoff Area=77.228 ac 0.34% Impervious Runoff Depth=0.14"
Flow Length=4,160' Tc=35.5 min CN=63 Runoff=2.86 cfs 0.928 af

Subcatchment5S: Sub 5 Runoff Area=17.299 ac 0.00% Impervious Runoff Depth=0.21"
Flow Length=1,946' Tc=24.6 min CN=66 Runoff=1.63 cfs 0.298 af

Subcatchment6S: Sub 6 Runoff Area=16.301 ac 0.00% Impervious Runoff Depth=0.21"
Flow Length=1,894' Tc=48.6 min CN=66 Runoff=1.03 cfs 0.280 af

Subcatchment7.1: Sub 7.1 Runoff Area=4.575 ac 0.00% Impervious Runoff Depth=0.08"
Flow Length=1,051' Tc=14.9 min CN=59 Runoff=0.05 cfs 0.030 af

Subcatchment7S: Sub 7 Runoff Area=62.317 ac 0.00% Impervious Runoff Depth=0.07"
Flow Length=2,117' Tc=40.9 min CN=58 Runoff=0.49 cfs 0.340 af

Subcatchment8S: Sub 8 Runoff Area=58.963 ac 0.00% Impervious Runoff Depth=0.28"
Flow Length=2,902' Tc=63.3 min CN=69 Runoff=5.24 cfs 1.378 af

Subcatchment9.1S: Sub 9.1 Runoff Area=8.972 ac 0.00% Impervious Runoff Depth=0.40"
Flow Length=873' Tc=34.1 min CN=73 Runoff=2.12 cfs 0.298 af

Subcatchment9S: Sub 9 Runoff Area=59.593 ac 1.28% Impervious Runoff Depth=0.14"
Flow Length=2,945' Tc=45.6 min CN=63 Runoff=1.97 cfs 0.716 af

Subcatchment10.1S: Sub 10.1 Runoff Area=2.860 ac 0.00% Impervious Runoff Depth=0.34"
Tc=18.7 min CN=71 Runoff=0.79 cfs 0.080 af

Subcatchment10S: Sub 10 Runoff Area=19.376 ac 5.62% Impervious Runoff Depth=0.37"
Flow Length=2,047' Tc=36.7 min CN=72 Runoff=3.83 cfs 0.593 af

Subcatchment11S: Sub 11 Runoff Area=17.595 ac 2.63% Impervious Runoff Depth=0.18"
Flow Length=1,622' Tc=19.0 min CN=65 Runoff=1.55 cfs 0.270 af

Subcatchment12S: Sub 12 Runoff Area=4.859 ac 53.67% Impervious Runoff Depth=1.84"
Tc=6.0 min CN=97 Runoff=13.94 cfs 0.744 af

Subcatchment13S: Sub 13 Runoff Area=10.383 ac 0.18% Impervious Runoff Depth=0.14"
Flow Length=849' Tc=17.7 min CN=63 Runoff=0.53 cfs 0.125 af

Subcatchment14S: Sub 14 Runoff Area=72.734 ac 0.42% Impervious Runoff Depth=0.23"
Flow Length=4,131' Tc=49.6 min CN=67 Runoff=5.46 cfs 1.393 af

Subcatchment17S: Sub 17 Runoff Area=97.893 ac 1.18% Impervious Runoff Depth=0.09"
Flow Length=3,526' Tc=35.1 min CN=60 Runoff=1.46 cfs 0.761 af

Subcatchment18S: Sub 18 Runoff Area=45.578 ac 0.74% Impervious Runoff Depth=0.25"
Flow Length=2,382' Tc=42.2 min CN=68 Runoff=4.51 cfs 0.966 af

Subcatchment19S: Sub 19 Runoff Area=28.407 ac 0.54% Impervious Runoff Depth=0.37"
Flow Length=1,760' Tc=30.4 min CN=72 Runoff=6.43 cfs 0.869 af

Subcatchment20S: Sub 20 Runoff Area=70.525 ac 0.78% Impervious Runoff Depth=0.21"
Flow Length=1,829' Tc=21.6 min UI Adjusted CN=66 Runoff=7.25 cfs 1.213 af

Subcatchment21S: Sub 21 Runoff Area=123.016 ac 3.33% Impervious Runoff Depth=0.23"
Flow Length=4,201' Tc=42.5 min CN=67 Runoff=10.13 cfs 2.356 af

Subcatchment22S: Sub 22 Runoff Area=62.296 ac 0.60% Impervious Runoff Depth=0.37"
Flow Length=1,648' Tc=34.6 min CN=72 Runoff=12.87 cfs 1.905 af

Subcatchment23.1: Sub 23.1 Runoff Area=3.682 ac 0.00% Impervious Runoff Depth=0.31"
Tc=6.0 min CN=70 Runoff=1.59 cfs 0.094 af

Subcatchment23S: Sub 23 Runoff Area=13.069 ac 2.96% Impervious Runoff Depth=0.25"
Flow Length=1,297' Tc=33.2 min UI Adjusted CN=68 Runoff=1.51 cfs 0.277 af

Subcatchment24S: Sub 24 Runoff Area=5.466 ac 7.70% Impervious Runoff Depth=0.40"
Flow Length=1,059' Tc=21.5 min UI Adjusted CN=73 Runoff=1.79 cfs 0.182 af

Subcatchment43: Subcat 43 Runoff Area=34.065 ac 0.27% Impervious Runoff Depth=0.34"
Flow Length=2,795' Tc=40.7 min CN=71 Runoff=5.47 cfs 0.956 af

Subcatchment44.1S: 44.1S Runoff Area=6.425 ac 0.00% Impervious Runoff Depth=0.58"
Tc=6.0 min CN=78 Runoff=6.32 cfs 0.312 af

Subcatchment44S: 44S Runoff Area=39.864 ac 0.00% Impervious Runoff Depth=0.31"
Flow Length=2,470' Tc=41.7 min CN=70 Runoff=5.45 cfs 1.023 af

Subcatchment45: Subcat 45 Runoff Area=33.931 ac 0.22% Impervious Runoff Depth=0.08"
Flow Length=2,198' Tc=29.8 min CN=59 Runoff=0.37 cfs 0.223 af

Subcatchment46.1S: 46.1S Runoff Area=238,360 sf 0.00% Impervious Runoff Depth=0.00"
Flow Length=719' Tc=31.5 min CN=45 Runoff=0.00 cfs 0.000 af

Subcatchment46S: Subcat 46 Runoff Area=1,102,260 sf 0.00% Impervious Runoff Depth=0.00"
Flow Length=1,524' Tc=54.0 min CN=41 Runoff=0.00 cfs 0.000 af

Subcatchment47S: Sub 47 Runoff Area=1,309,372 sf 1.25% Impervious Runoff Depth=0.00"
Flow Length=1,895' Tc=43.3 min UI Adjusted CN=40 Runoff=0.00 cfs 0.000 af

Reach 6R: W-NSD-35 Avg. Flow Depth=0.20' Max Vel=2.23 fps Inflow=5.24 cfs 1.378 af
n=0.035 L=1,882.0' S=0.0276 '/' Capacity=25.08 cfs Outflow=4.92 cfs 1.378 af

Reach 13.1R: Avg. Flow Depth=0.08' Max Vel=2.22 fps Inflow=1.40 cfs 0.745 af
n=0.030 L=165.0' S=0.0727 '/' Capacity=48.67 cfs Outflow=1.40 cfs 0.745 af

Reach 13.2R: Avg. Flow Depth=0.13' Max Vel=4.64 fps Inflow=1.40 cfs 0.745 af
n=0.035 L=232.0' S=0.2069 '/' Capacity=1,230.81 cfs Outflow=1.40 cfs 0.745 af

Reach 20.1R: S-KCF-6 Avg. Flow Depth=0.62' Max Vel=1.69 fps Inflow=13.40 cfs 2.082 af
n=0.030 L=1,405.0' S=0.0028 '/' Capacity=141.69 cfs Outflow=10.19 cfs 2.082 af

Reach 20.2R: Avg. Flow Depth=0.42' Max Vel=2.39 fps Inflow=10.19 cfs 2.082 af
n=0.035 L=1,322.0' S=0.0121 '/' Capacity=250.41 cfs Outflow=9.34 cfs 2.082 af

Reach 22.1R: S-KCF-5 Avg. Flow Depth=0.43' Max Vel=2.03 fps Inflow=10.13 cfs 2.356 af
n=0.030 L=665.0' S=0.0060 '/' Capacity=89.91 cfs Outflow=9.94 cfs 2.356 af

Reach 22.2R: Avg. Flow Depth=0.62' Max Vel=2.40 fps Inflow=17.72 cfs 4.438 af
n=0.035 L=707.0' S=0.0075 '/' Capacity=86.27 cfs Outflow=17.45 cfs 4.438 af

Reach 44R: Avg. Flow Depth=0.40' Max Vel=3.08 fps Inflow=5.47 cfs 0.956 af
n=0.035 L=498.0' S=0.0321 '/' Capacity=8.70 cfs Outflow=5.43 cfs 0.956 af

Reach 45R: Avg. Flow Depth=0.39' Max Vel=4.03 fps Inflow=10.84 cfs 1.979 af
n=0.035 L=537.0' S=0.0372 '/' Capacity=16.21 cfs Outflow=10.78 cfs 1.979 af

Pond 4.1P: 4.1P Peak Elev=492.07' Storage=13,868 cf Inflow=4.79 cfs 0.320 af
Primary=0.01 cfs 0.018 af Secondary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.018 af

Pond 7.1P: Peak Elev=512.20' Storage=1,308 cf Inflow=0.05 cfs 0.030 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 9.1P: 9.1P Peak Elev=467.22' Storage=10,910 cf Inflow=2.12 cfs 0.298 af
Primary=0.10 cfs 0.088 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.088 af

Pond 10.1P: 10.1P Peak Elev=568.63' Storage=3,495 cf Inflow=0.79 cfs 0.080 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 12P: 12P Peak Elev=507.46' Storage=11,723 cf Inflow=13.94 cfs 0.744 af
8.0" Round Culvert n=0.013 L=172.7' S=0.0058 '/' Outflow=1.40 cfs 0.745 af

Pond 23.1P: 23.1P Peak Elev=493.06' Storage=4,062 cf Inflow=1.59 cfs 0.094 af
Primary=0.01 cfs 0.007 af Secondary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.007 af

Pond 44.1P: 44.1P Peak Elev=426.67' Storage=13,588 cf Inflow=6.32 cfs 0.312 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 46.1P: 46.1P Peak Elev=354.00' Storage=0 cf Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Link SP1: Inflow=0.03 cfs 0.020 af
Primary=0.03 cfs 0.020 af

Link SP10: Inflow=3.83 cfs 0.593 af
Primary=3.83 cfs 0.593 af

Link SP11: Inflow=1.55 cfs 0.270 af
Primary=1.55 cfs 0.270 af

Link SP13: Inflow=1.93 cfs 0.870 af
Primary=1.93 cfs 0.870 af

Link SP14: Inflow=5.46 cfs 1.393 af
Primary=5.46 cfs 1.393 af

Link SP17: Inflow=1.46 cfs 0.761 af
Primary=1.46 cfs 0.761 af

Link SP18: Inflow=4.51 cfs 0.966 af
Primary=4.51 cfs 0.966 af

Link SP2: Inflow=0.07 cfs 0.058 af
Primary=0.07 cfs 0.058 af

Link SP22: Inflow=22.16 cfs 6.343 af
Primary=22.16 cfs 6.343 af

Link SP23: Inflow=1.51 cfs 0.284 af
Primary=1.51 cfs 0.284 af

Link SP24: Inflow=1.79 cfs 0.182 af
Primary=1.79 cfs 0.182 af

Link SP3: Inflow=0.54 cfs 0.264 af
Primary=0.54 cfs 0.264 af

Link SP4: Inflow=2.86 cfs 0.946 af
Primary=2.86 cfs 0.946 af

Link SP43: Inflow=11.09 cfs 2.201 af
Primary=11.09 cfs 2.201 af

Link SP46: Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Link SP47: Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Link SP5: Inflow=6.14 cfs 1.956 af
Primary=6.14 cfs 1.956 af

Link SP7: Inflow=0.49 cfs 0.340 af
Primary=0.49 cfs 0.340 af

Link SP9: Inflow=1.97 cfs 0.805 af
Primary=1.97 cfs 0.805 af

Total Runoff Area = 1,129.459 ac Runoff Volume = 19.274 af Average Runoff Depth = 0.20"
98.80% Pervious = 1,115.941 ac 1.20% Impervious = 13.519 ac

Summary for Subcatchment 1S: Sub 1

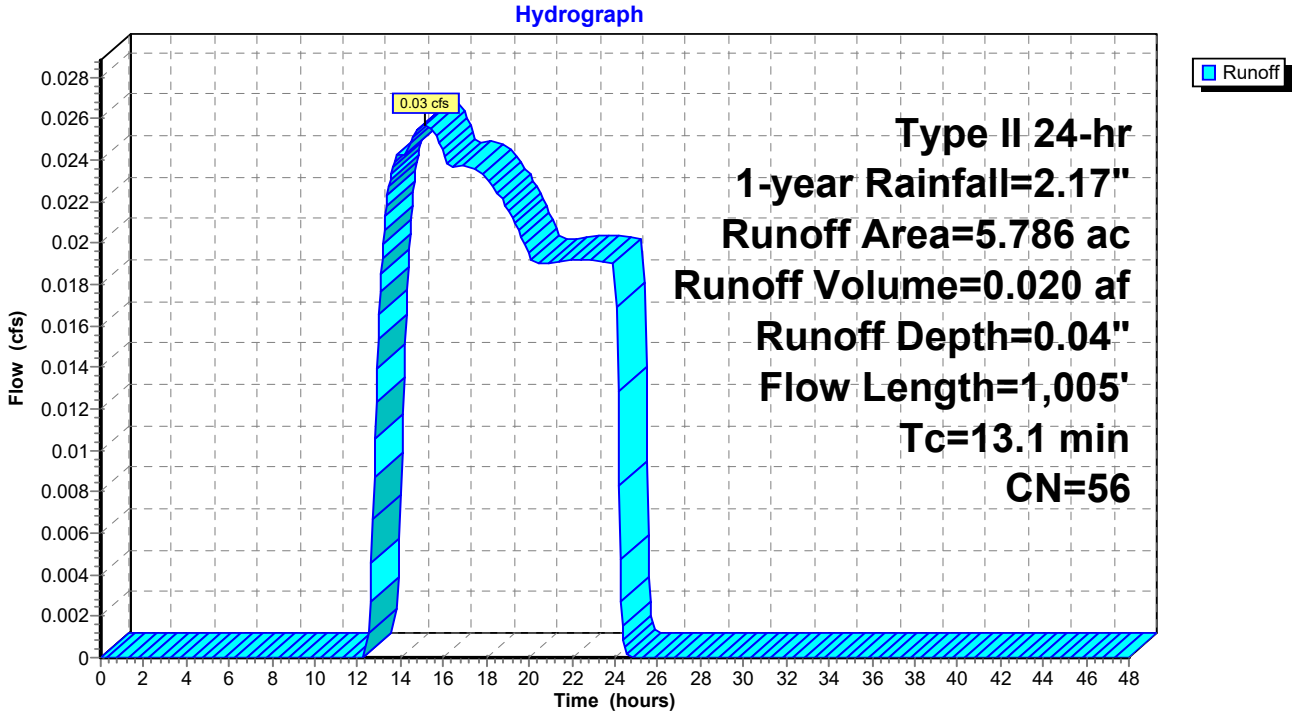
Runoff = 0.03 cfs @ 15.11 hrs, Volume= 0.020 af, Depth= 0.04"
Routed to Link SP1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
1.637	58	Meadow, non-grazed, HSG B
4.149	55	Woods, Good, HSG B
5.786	56	Weighted Average
5.786		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0620	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.9	427	0.2390	2.44		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.0	263	0.0980	2.19		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	215	0.4050	3.18		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
13.1	1,005	Total			

Subcatchment 1S: Sub 1



Summary for Subcatchment 2S: Sub 2

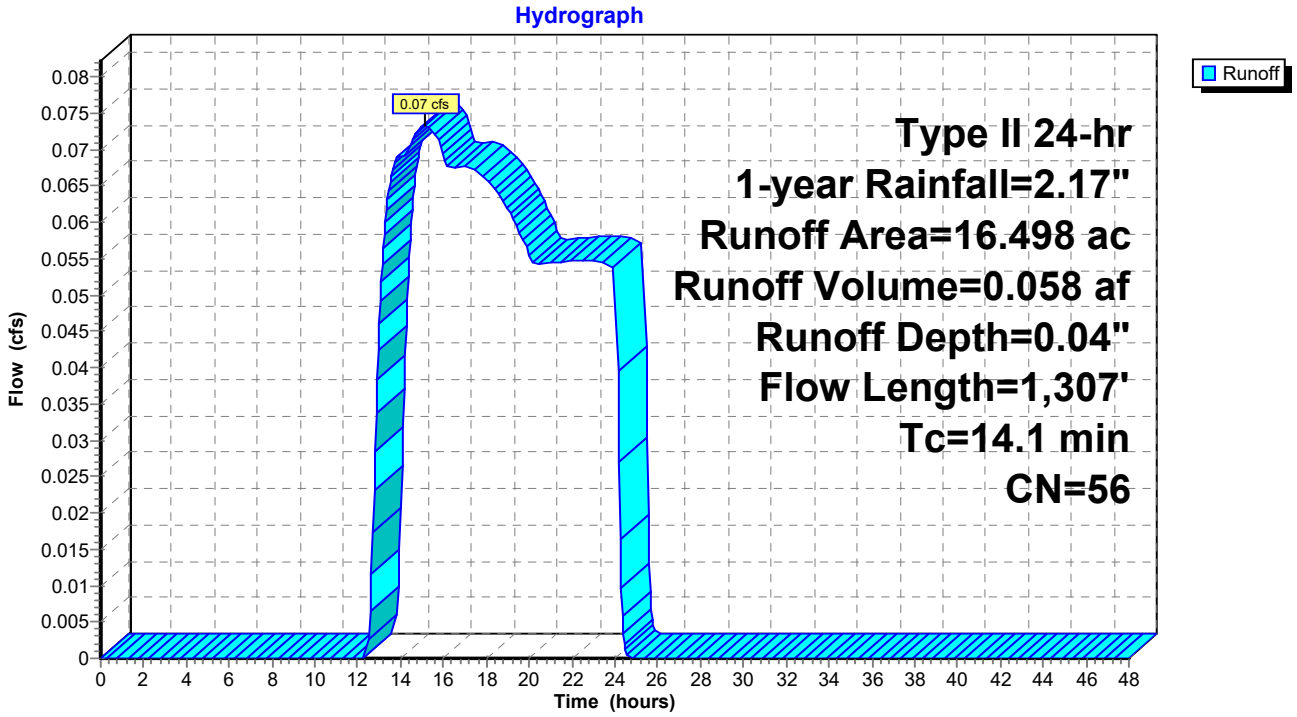
Runoff = 0.07 cfs @ 15.12 hrs, Volume= 0.058 af, Depth= 0.04"
Routed to Link SP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.124	30	Meadow, non-grazed, HSG A
8.883	58	Meadow, non-grazed, HSG B
7.491	55	Woods, Good, HSG B
16.498	56	Weighted Average
16.498		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1010	0.29		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.8	407	0.2420	2.46		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	225	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	169	0.1830	2.14		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	113	0.5100	3.57		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.2	293	0.0220	2.22		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
14.1	1,307	Total			

Subcatchment 2S: Sub 2



Summary for Subcatchment 3S: Sub 3

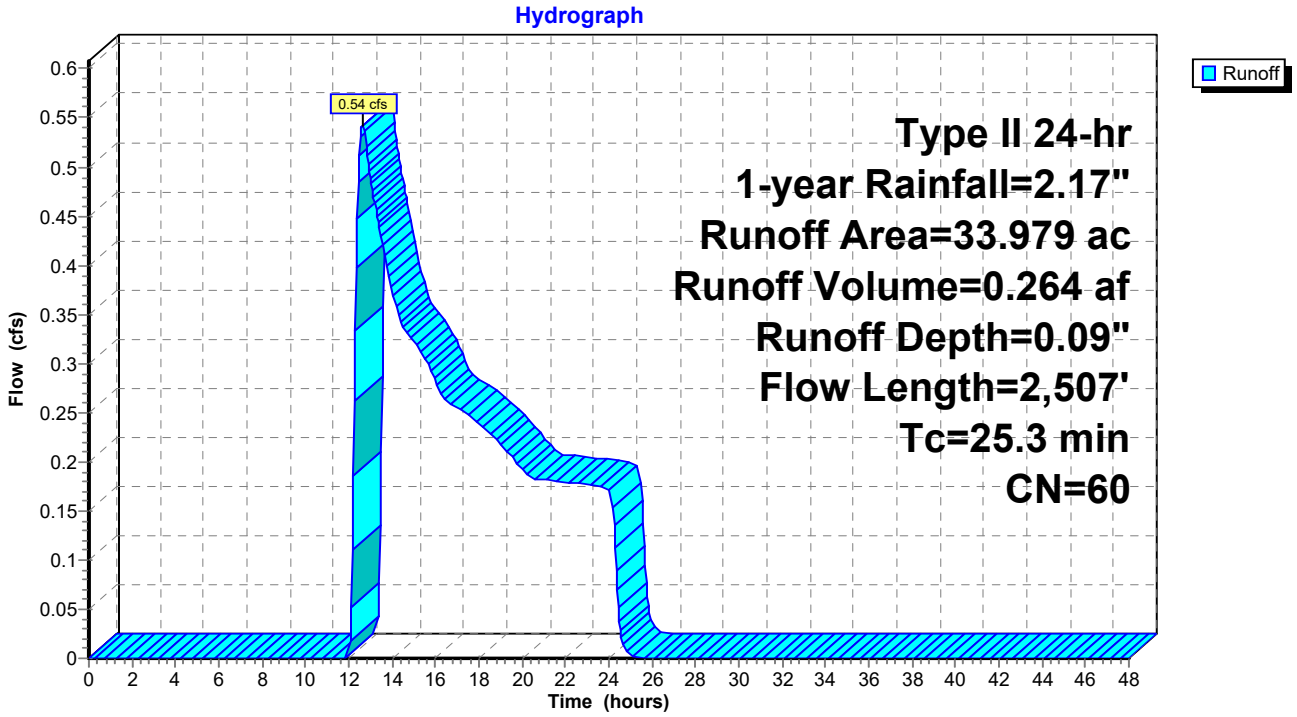
Runoff = 0.54 cfs @ 12.64 hrs, Volume= 0.264 af, Depth= 0.09"
Routed to Link SP3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
18.697	58	Meadow, non-grazed, HSG B
7.336	71	Meadow, non-grazed, HSG C
7.021	55	Woods, Good, HSG B
0.032	70	Woods, Good, HSG C
0.530	96	Gravel surface, HSG A
0.363	30	Meadow, non-grazed, HSG A
33.979	60	Weighted Average
33.979		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.0400	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
9.4	1,002	0.0640	1.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	337	0.0940	1.53		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.5	632		4.29		**Direct Entry, CF**
1.3	436		5.59		**Direct Entry, CF**
25.3	2,507	Total			

Subcatchment 3S: Sub 3



Summary for Subcatchment 4.1S:

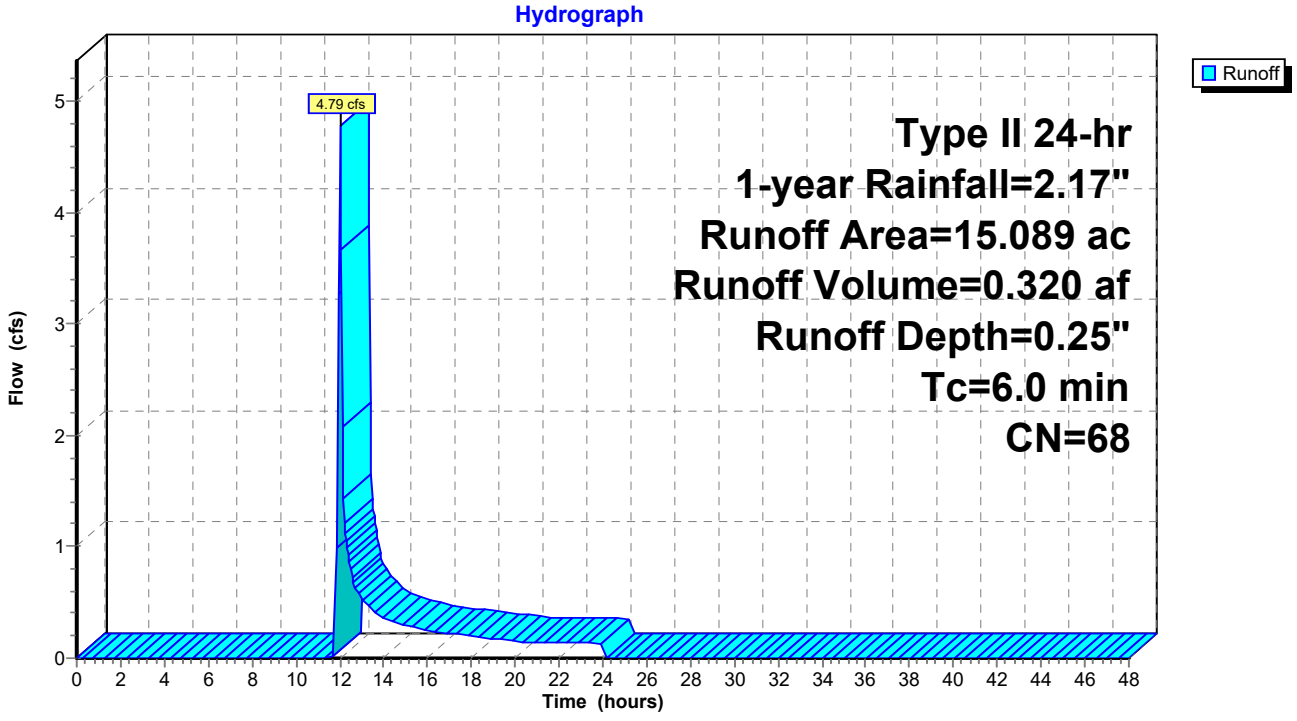
Runoff = 4.79 cfs @ 12.00 hrs, Volume= 0.320 af, Depth= 0.25"
Routed to Pond 4.1P : 4.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	10.486	71	Meadow, non-grazed, HSG C
*	0.460	96	Gravel
	4.143	58	Meadow, non-grazed, HSG B
	15.089	68	Weighted Average
	15.089		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4.1S:



Summary for Subcatchment 4S: Sub 4

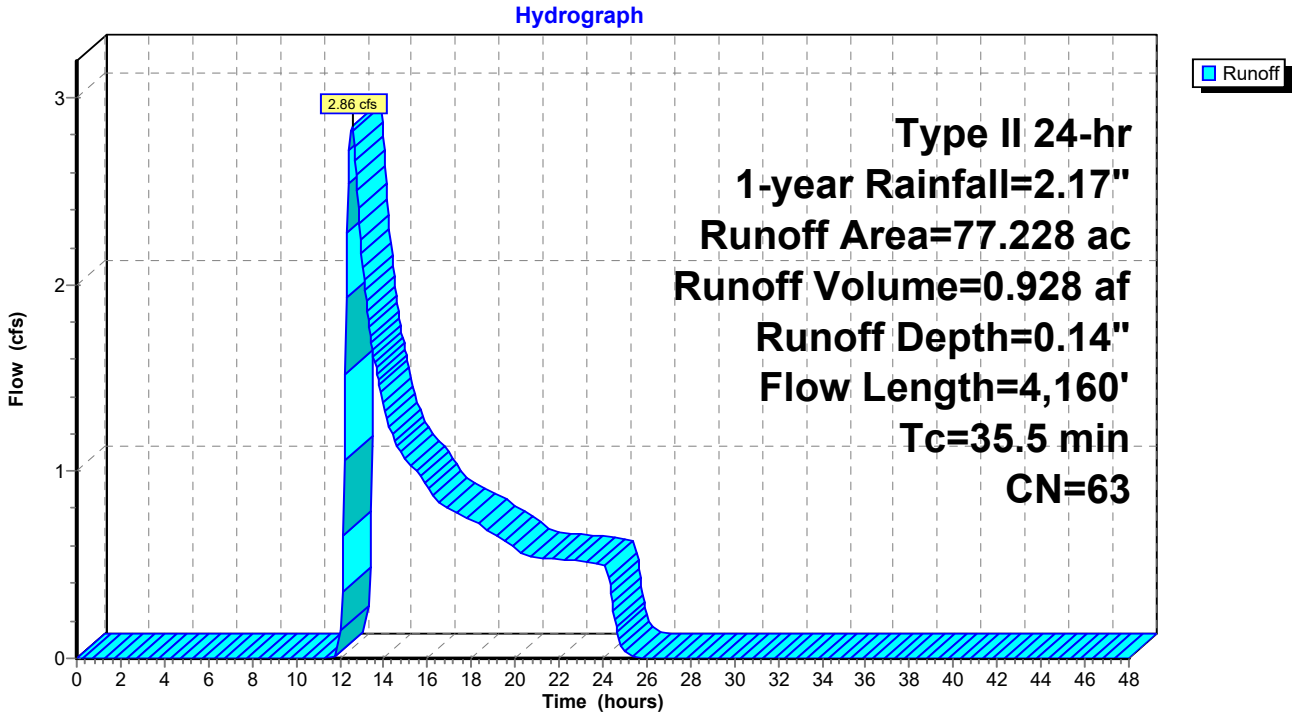
Runoff = 2.86 cfs @ 12.55 hrs, Volume= 0.928 af, Depth= 0.14"
Routed to Link SP4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	0.192	48	Brush, Good, HSG B
*	1.316	96	Gravel surface
*	0.259	98	Unconnected roofs
	0.393	30	Meadow, non-grazed, HSG A
	37.390	58	Meadow, non-grazed, HSG B
	23.983	71	Meadow, non-grazed, HSG C
	10.293	55	Woods, Good, HSG B
	3.402	70	Woods, Good, HSG C
	77.228	63	Weighted Average
	76.969		99.66% Pervious Area
	0.259		0.34% Impervious Area
	0.259		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.1900	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
1.8	295	0.1550	2.76		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.1	1,344	0.0350	1.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	2,421		6.02		**Direct Entry, CF**
35.5	4,160	Total			

Subcatchment 4S: Sub 4



Summary for Subcatchment 5S: Sub 5

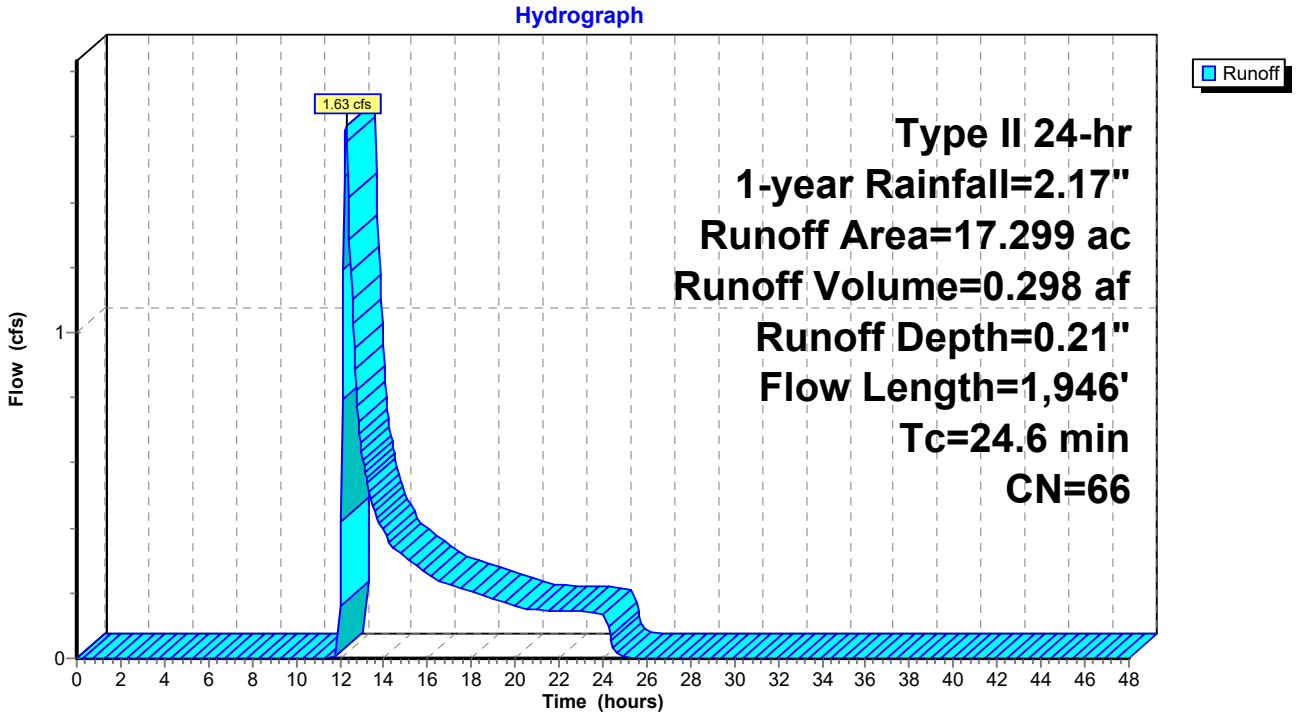
Runoff = 1.63 cfs @ 12.28 hrs, Volume= 0.298 af, Depth= 0.21"
Routed to Link SP5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
6.510	58	Meadow, non-grazed, HSG B
8.386	71	Meadow, non-grazed, HSG C
0.686	55	Woods, Good, HSG B
1.558	70	Woods, Good, HSG C
0.159	96	Gravel surface, HSG A
17.299	66	Weighted Average
17.299		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	100	0.0220	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.9	607	0.0440	1.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	195	0.0780	1.40		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.7	1,044		3.70		**Direct Entry, CF**
24.6	1,946	Total			

Subcatchment 5S: Sub 5



Summary for Subcatchment 6S: Sub 6

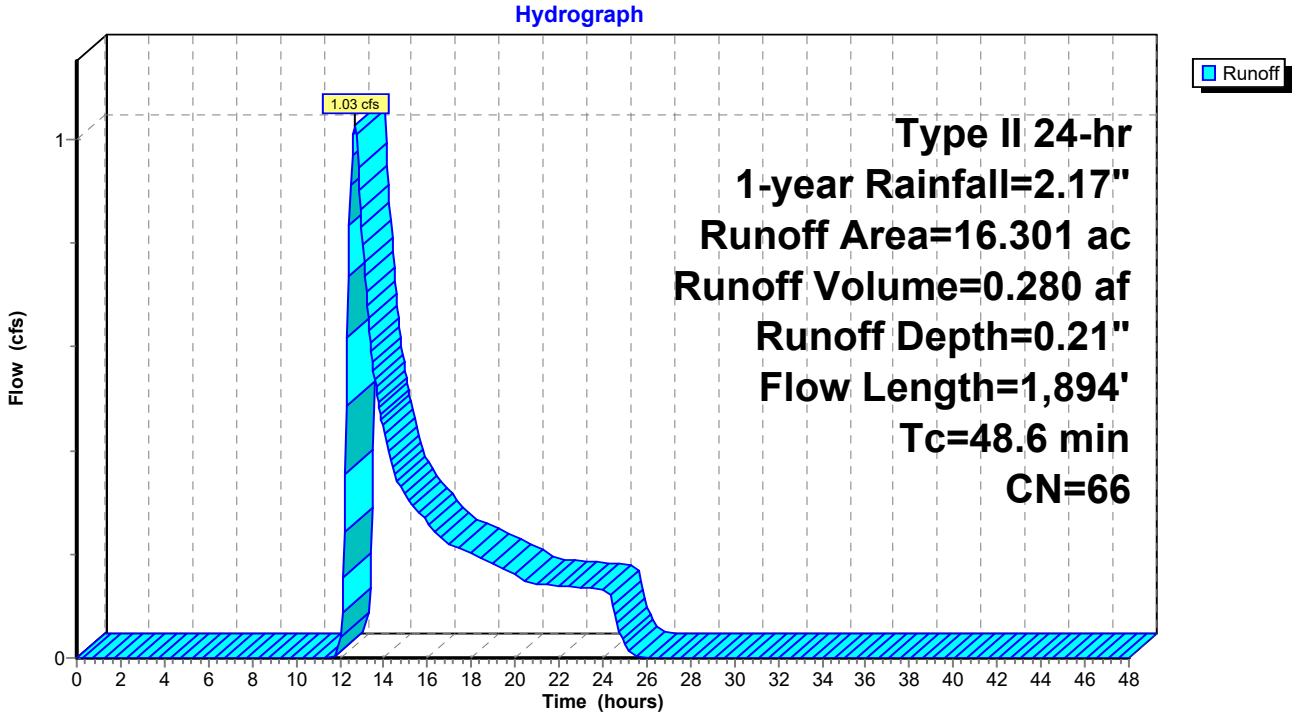
Runoff = 1.03 cfs @ 12.69 hrs, Volume= 0.280 af, Depth= 0.21"
Routed to Link SP5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
6.064	58	Meadow, non-grazed, HSG B
9.461	71	Meadow, non-grazed, HSG C
0.126	55	Woods, Good, HSG B
0.650	70	Woods, Good, HSG C
16.301	66	Weighted Average
16.301		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.8	100	0.0020	0.06		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
19.8	1,554	0.0350	1.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	240		3.81		**Direct Entry, CF**
48.6	1,894	Total			

Subcatchment 6S: Sub 6



Summary for Subcatchment 7.1: Sub 7.1

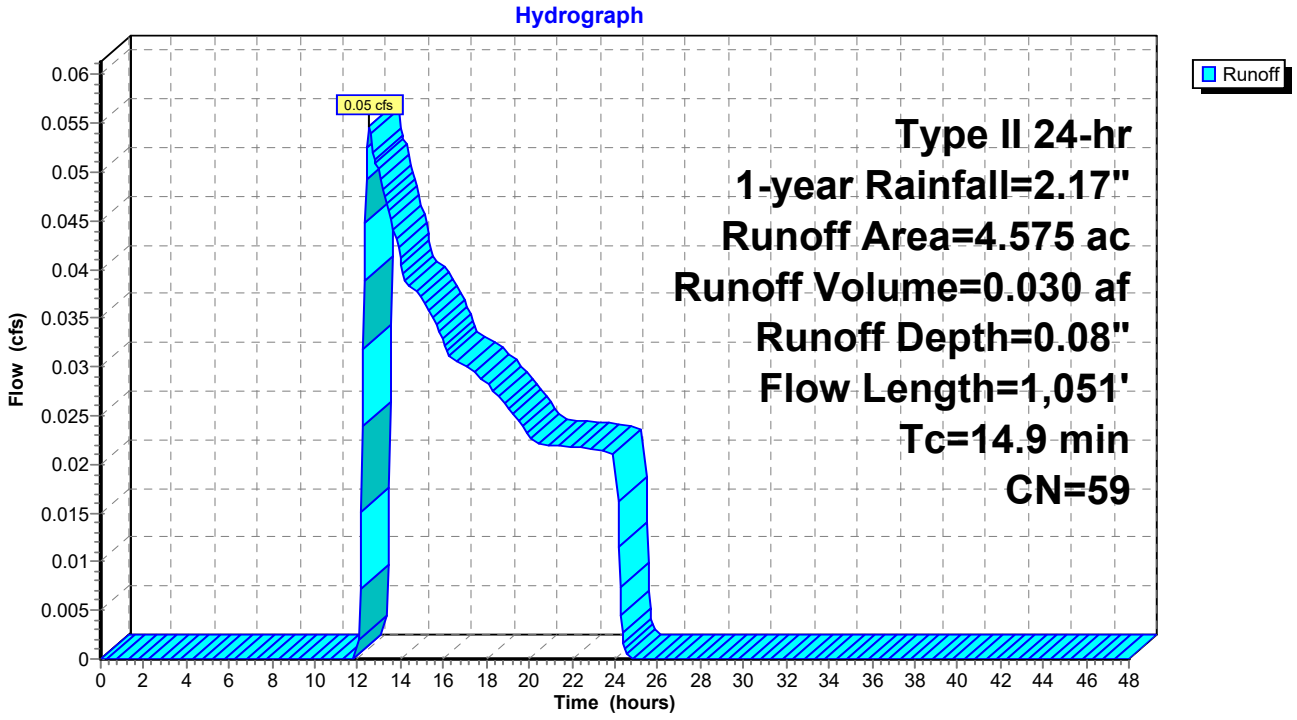
Runoff = 0.05 cfs @ 12.55 hrs, Volume= 0.030 af, Depth= 0.08"
Routed to Pond 7.1P :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
4.216	58	Meadow, non-grazed, HSG B
0.131	96	Gravel surface, HSG B
0.228	55	Woods, Good, HSG B
4.575	59	Weighted Average
4.575		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.0640	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.7	90	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	54	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
6.7	807	0.0820	2.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.9	1,051	Total			

Subcatchment 7.1: Sub 7.1



Summary for Subcatchment 7S: Sub 7

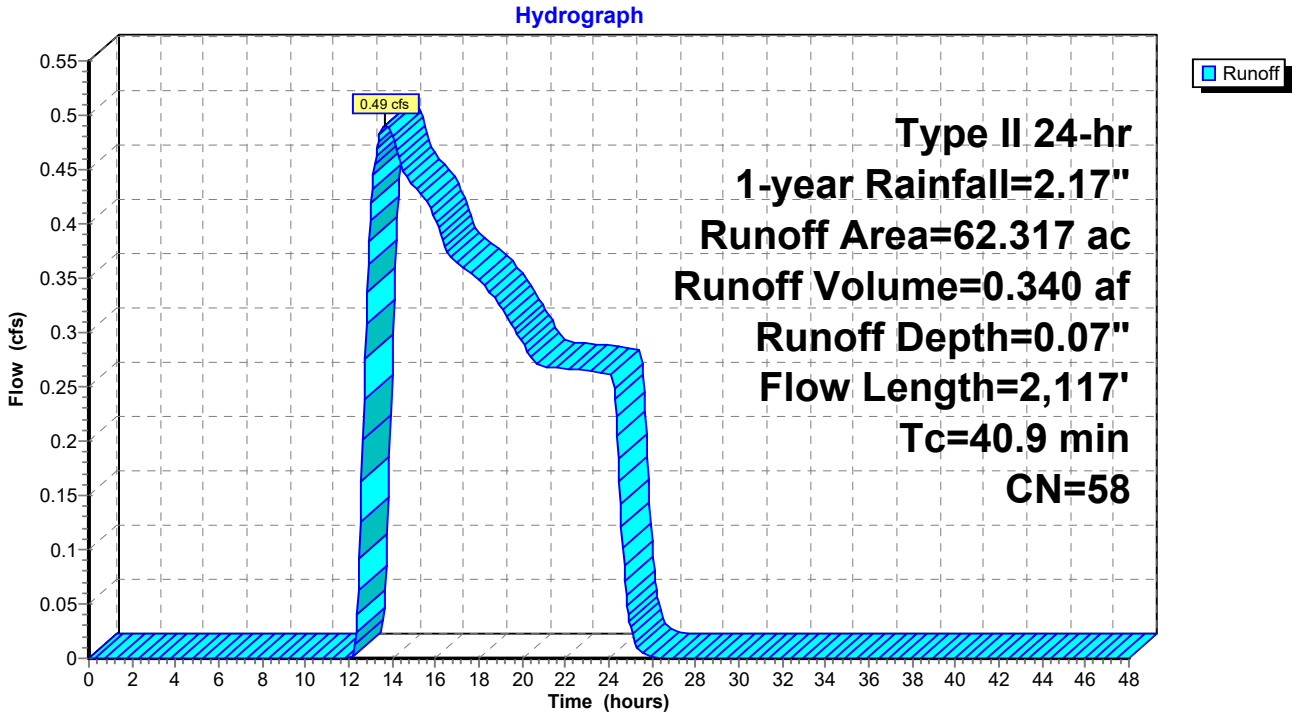
Runoff = 0.49 cfs @ 13.70 hrs, Volume= 0.340 af, Depth= 0.07"
Routed to Link SP7 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
46.288	58	Meadow, non-grazed, HSG B
1.123	78	Meadow, non-grazed, HSG D
12.864	55	Woods, Good, HSG B
0.323	77	Woods, Good, HSG D
0.107	74	Pasture/grassland/range, Good, HSG C
1.155	96	Gravel surface, HSG A
0.457	48	Brush, Good, HSG B
62.317	58	Weighted Average
62.317		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.8	100	0.0020	0.06		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
9.7	786	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	1,231		6.01		**Direct Entry,**
40.9	2,117	Total			

Subcatchment 7S: Sub 7



Summary for Subcatchment 8S: Sub 8

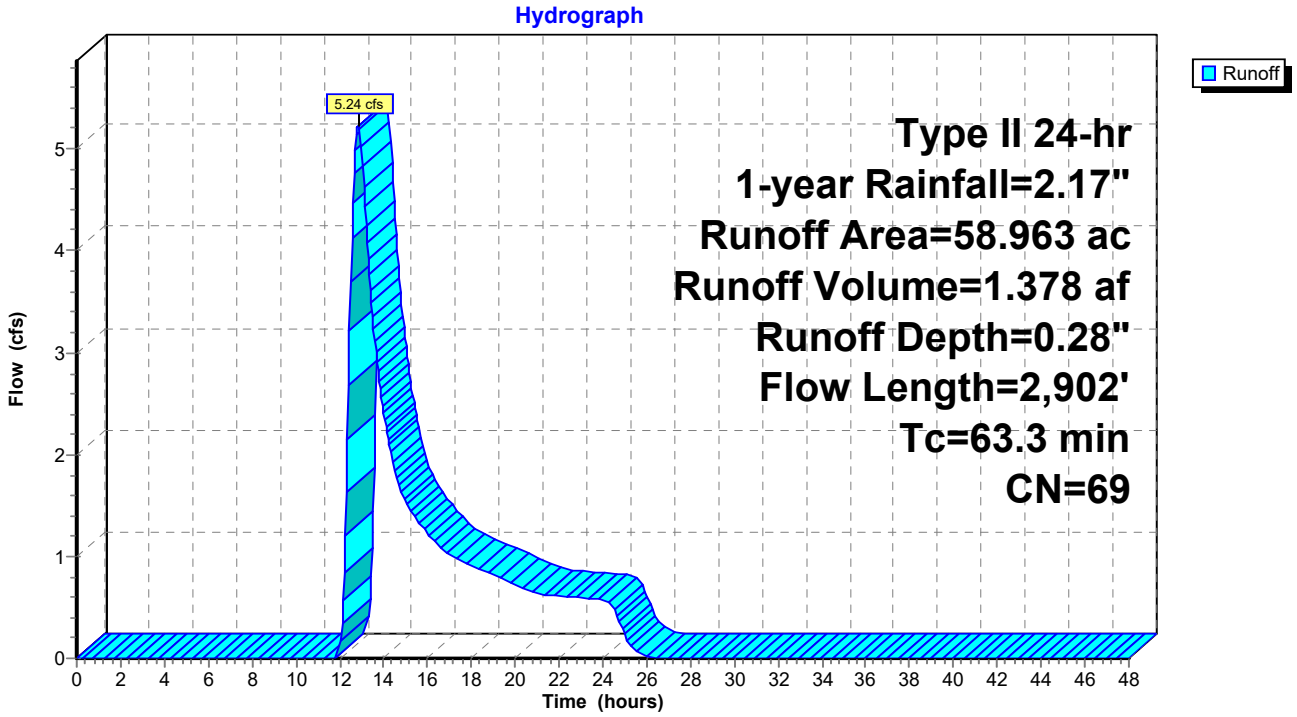
Runoff = 5.24 cfs @ 12.85 hrs, Volume= 1.378 af, Depth= 0.28"
Routed to Reach 6R : W-NSD-35

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
6.209	58	Meadow, non-grazed, HSG B
30.343	71	Meadow, non-grazed, HSG C
8.033	78	Meadow, non-grazed, HSG D
5.658	55	Woods, Good, HSG B
6.737	70	Woods, Good, HSG C
1.132	77	Woods, Good, HSG D
0.761	96	Gravel surface, HSG A
0.090	80	Pasture/grassland/range, Good, HSG D
58.963	69	Weighted Average
58.963		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.7	100	0.0030	0.07		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.6	315	0.0130	0.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
23.1	727	0.0110	0.52		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.9	1,760		2.97		**Direct Entry, CF**
63.3	2,902	Total			

Subcatchment 8S: Sub 8



Summary for Subcatchment 9.1S: Sub 9.1

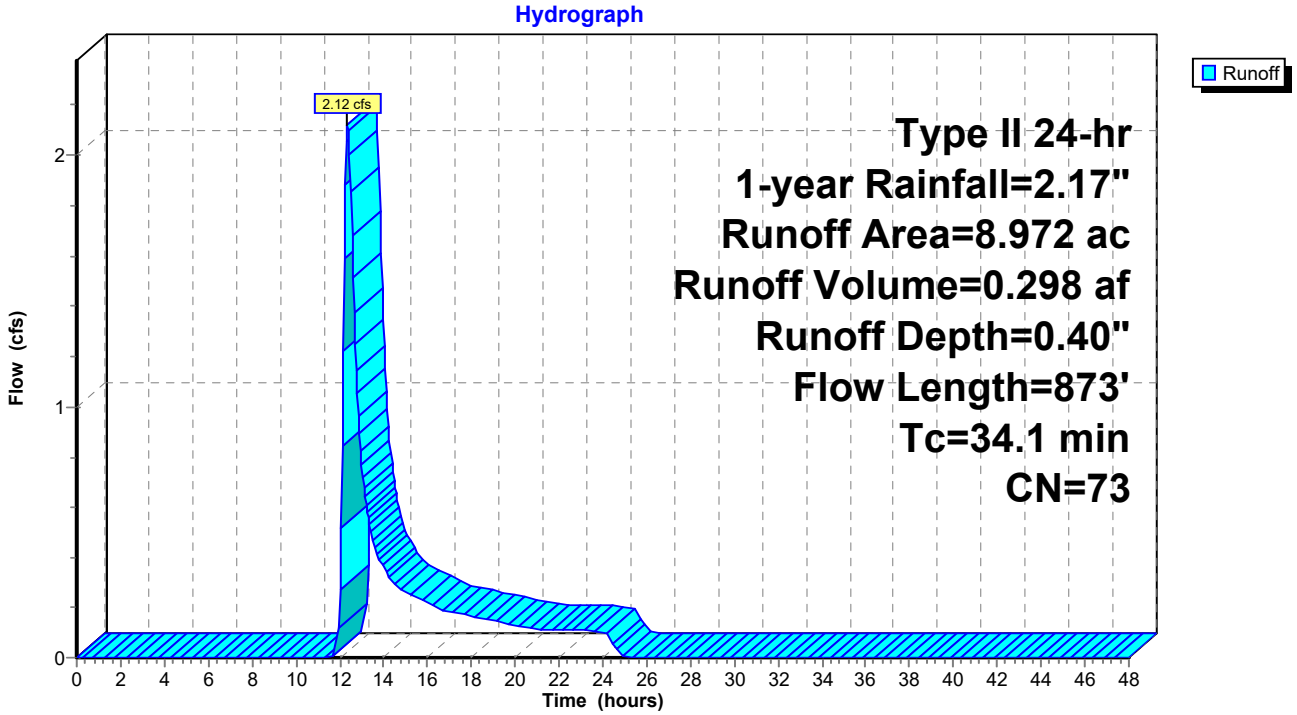
Runoff = 2.12 cfs @ 12.36 hrs, Volume= 0.298 af, Depth= 0.40"
Routed to Pond 9.1P : 9.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
1.619	78	Meadow, non-grazed, HSG D
0.528	65	Brush, Good, HSG C
4.896	71	Meadow, non-grazed, HSG C
1.929	74	>75% Grass cover, Good, HSG C
8.972	73	Weighted Average
8.972		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.0040	0.08		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
13.0	773	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
34.1	873	Total			

Subcatchment 9.1S: Sub 9.1



Summary for Subcatchment 9S: Sub 9

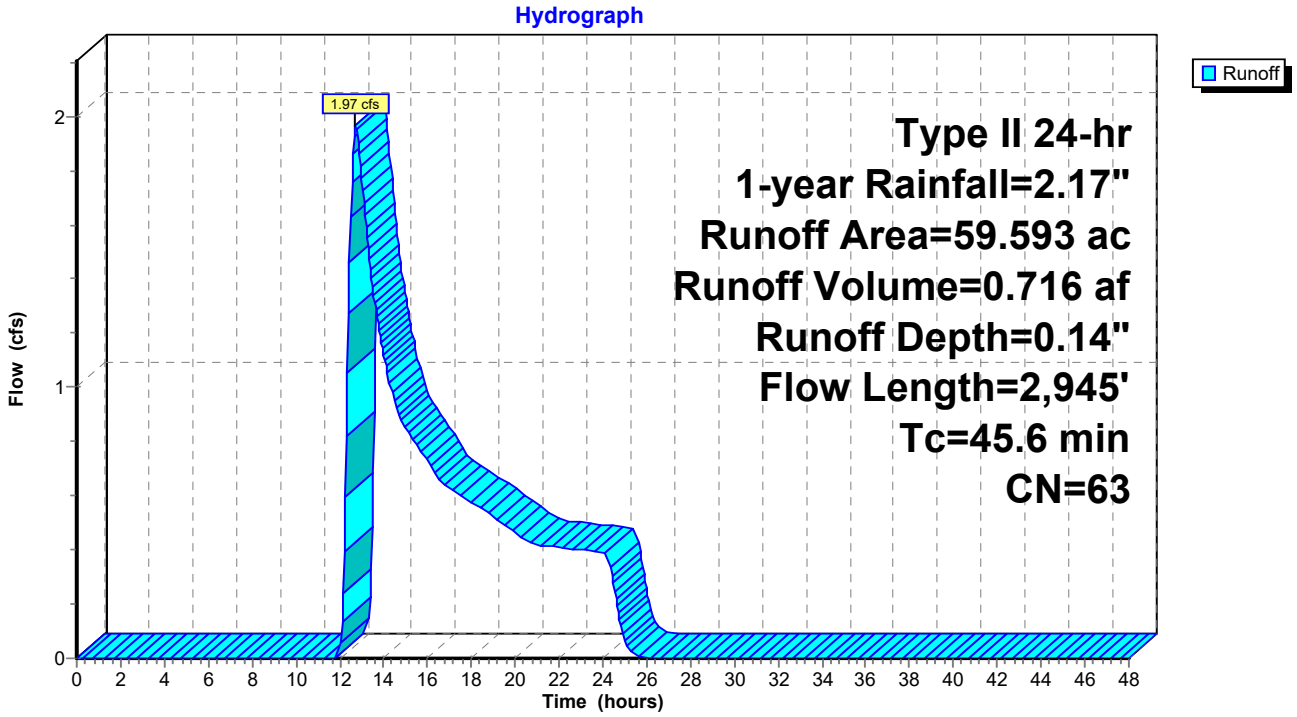
Runoff = 1.97 cfs @ 12.72 hrs, Volume= 0.716 af, Depth= 0.14"
Routed to Link SP9 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
2.871	48	Brush, Good, HSG B
0.293	65	Brush, Good, HSG C
0.014	73	Brush, Good, HSG D
3.530	96	Gravel surface, HSG D
0.332	98	Unconnected roofs, HSG D
23.963	58	Meadow, non-grazed, HSG B
2.179	71	Meadow, non-grazed, HSG C
0.495	78	Meadow, non-grazed, HSG D
6.553	61	>75% Grass cover, Good, HSG B
6.501	74	>75% Grass cover, Good, HSG C
0.430	98	Water Surface, HSG D
10.852	55	Woods, Good, HSG B
1.580	70	Woods, Good, HSG C
59.593	63	Weighted Average
58.831		98.72% Pervious Area
0.762		1.28% Impervious Area
0.332		43.57% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0060	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
13.8	841	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.9	1,254	0.0750	1.92		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.6	156		1.63		**Direct Entry,**
1.4	594		7.07		**Direct Entry,**
45.6	2,945	Total			

Subcatchment 9S: Sub 9



Summary for Subcatchment 10.1S: Sub 10.1

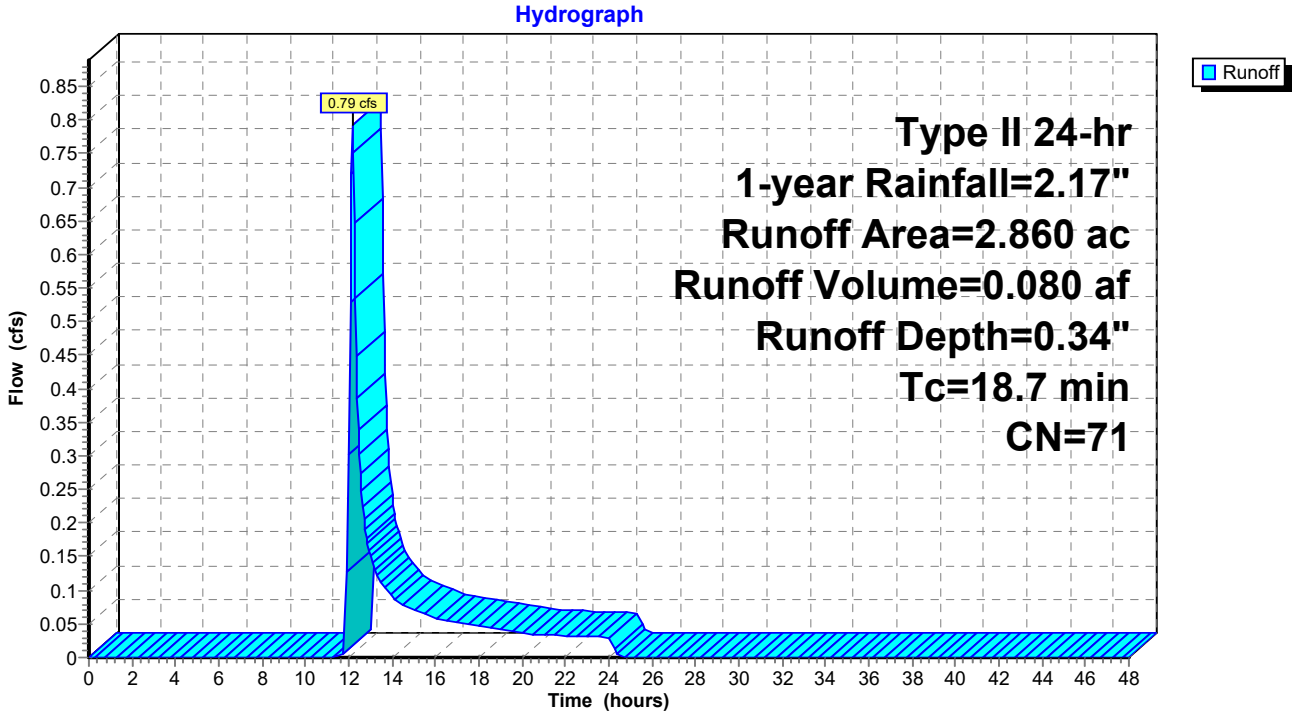
Runoff = 0.79 cfs @ 12.16 hrs, Volume= 0.080 af, Depth= 0.34"
Routed to Pond 10.1P : 10.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.026	61	>75% Grass cover, Good, HSG B
0.781	74	>75% Grass cover, Good, HSG C
0.447	80	>75% Grass cover, Good, HSG D
0.524	58	Meadow, non-grazed, HSG B
1.054	71	Meadow, non-grazed, HSG C
0.028	65	Brush, Good, HSG C
2.860	71	Weighted Average
2.860		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.7					**Direct Entry, Direct**

Subcatchment 10.1S: Sub 10.1



Summary for Subcatchment 10S: Sub 10

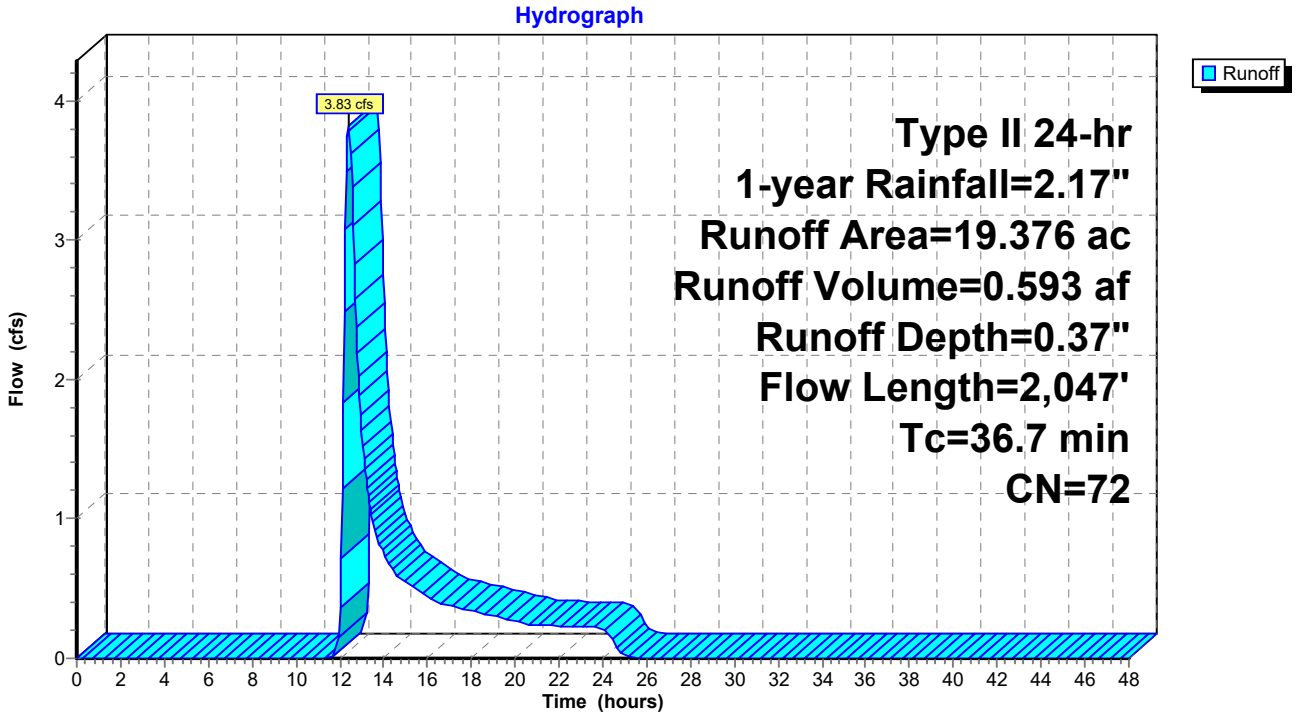
Runoff = 3.83 cfs @ 12.41 hrs, Volume= 0.593 af, Depth= 0.37"
Routed to Link SP10 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
1.008	98	Water Surface, HSG D
0.081	98	Unconnected roofs, HSG D
0.828	96	Gravel surface, HSG D
0.200	48	Brush, Good, HSG B
1.752	65	Brush, Good, HSG C
2.996	73	Brush, Good, HSG D
0.403	58	Meadow, non-grazed, HSG B
1.089	71	Meadow, non-grazed, HSG C
4.486	61	>75% Grass cover, Good, HSG B
2.211	74	>75% Grass cover, Good, HSG C
3.204	80	>75% Grass cover, Good, HSG D
0.917	55	Woods, Good, HSG B
0.044	70	Woods, Good, HSG C
0.157	77	Woods, Good, HSG D
19.376	72	Weighted Average
18.287		94.38% Pervious Area
1.089		5.62% Impervious Area
0.081		7.44% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0210	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
22.7	1,347	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.1	600		3.18		**Direct Entry, CF**
36.7	2,047	Total			

Subcatchment 10S: Sub 10



Summary for Subcatchment 11S: Sub 11

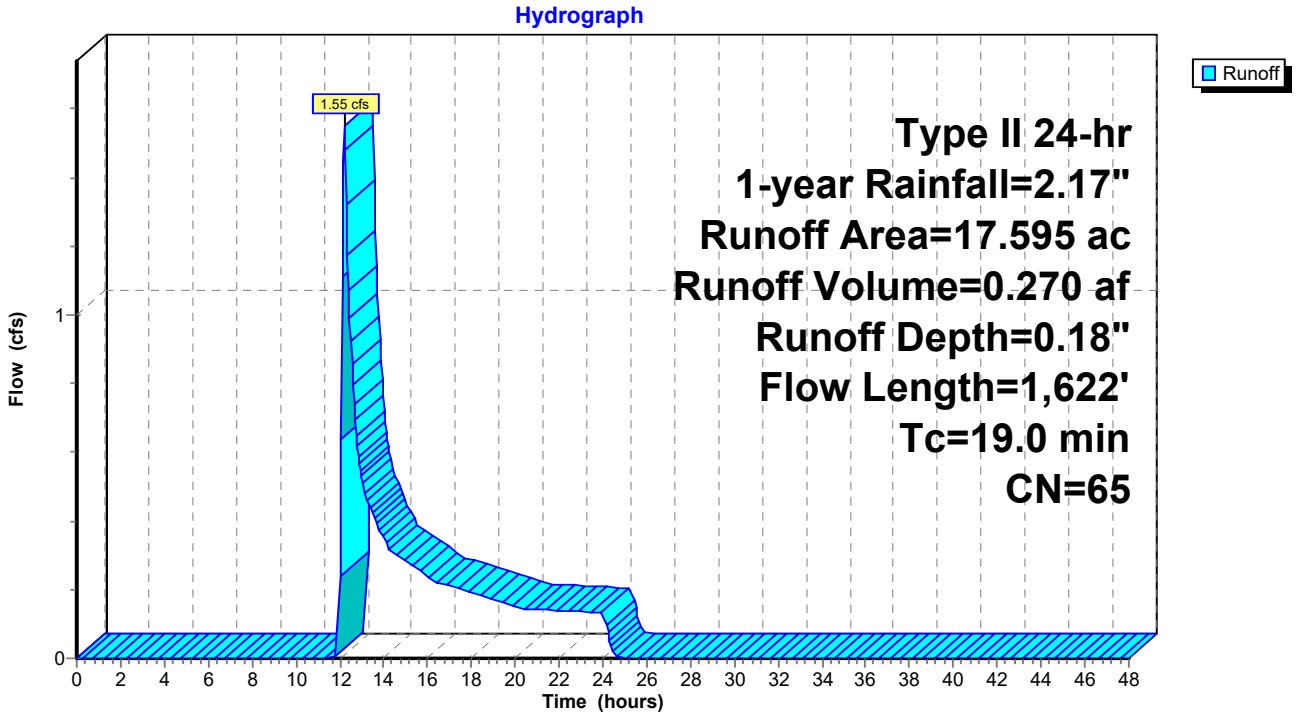
Runoff = 1.55 cfs @ 12.20 hrs, Volume= 0.270 af, Depth= 0.18"
Routed to Link SP11 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.199	48	Brush, Good, HSG B
0.091	65	Brush, Good, HSG C
1.969	96	Gravel surface, HSG D
0.091	98	Unconnected roofs, HSG D
2.133	58	Meadow, non-grazed, HSG B
1.351	71	Meadow, non-grazed, HSG C
2.660	61	>75% Grass cover, Good, HSG B
1.151	74	>75% Grass cover, Good, HSG C
0.372	98	Water Surface, HSG D
7.243	55	Woods, Good, HSG B
0.335	70	Woods, Good, HSG C
17.595	65	Weighted Average
17.132		97.37% Pervious Area
0.463		2.63% Impervious Area
0.091		19.65% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.0320	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.9	579	0.0240	2.49		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.6	277	0.0620	1.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.7	102	0.2670	2.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.6	564		3.62		**Direct Entry, CF**
19.0	1,622	Total			

Subcatchment 11S: Sub 11



Summary for Subcatchment 12S: Sub 12

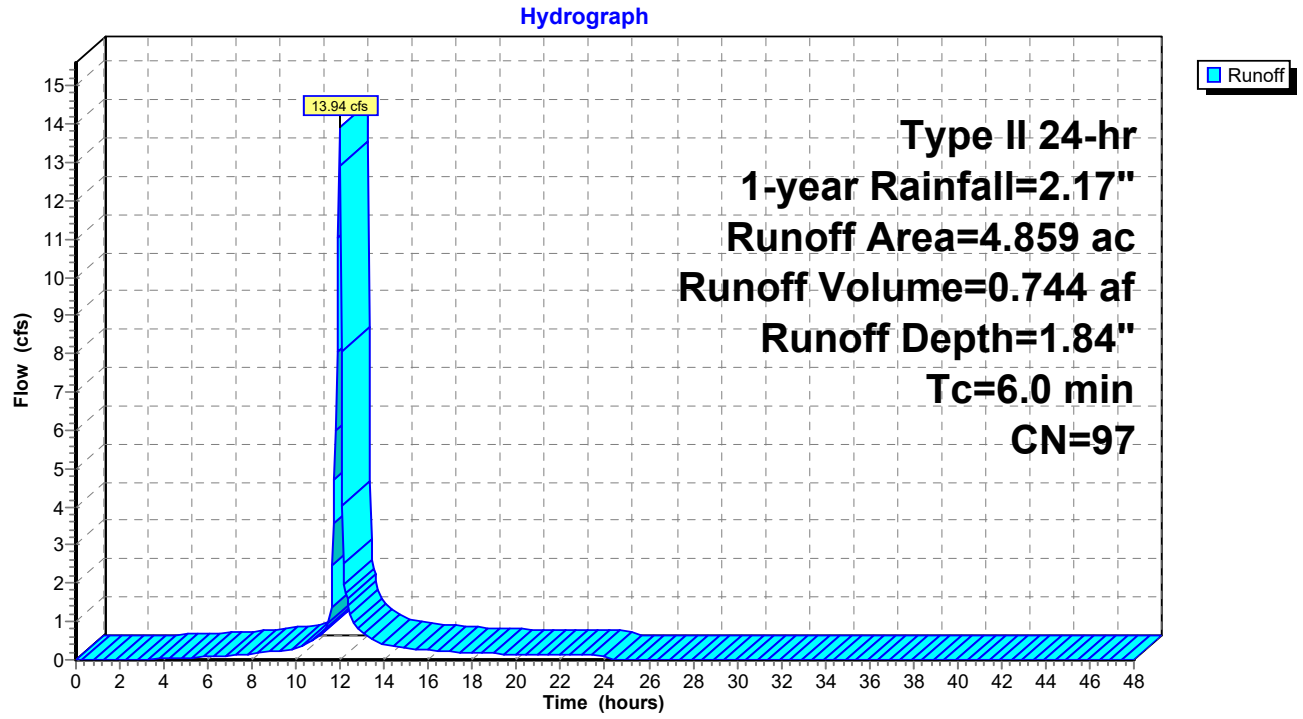
Runoff = 13.94 cfs @ 11.96 hrs, Volume= 0.744 af, Depth= 1.84"
Routed to Pond 12P : 12P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.038	98	Unconnected pavement, HSG D
2.251	96	Gravel surface, HSG D
2.570	98	Water Surface, HSG D
4.859	97	Weighted Average
2.251		46.33% Pervious Area
2.608		53.67% Impervious Area
0.038		1.46% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, minimum**

Subcatchment 12S: Sub 12



Summary for Subcatchment 13S: Sub 13

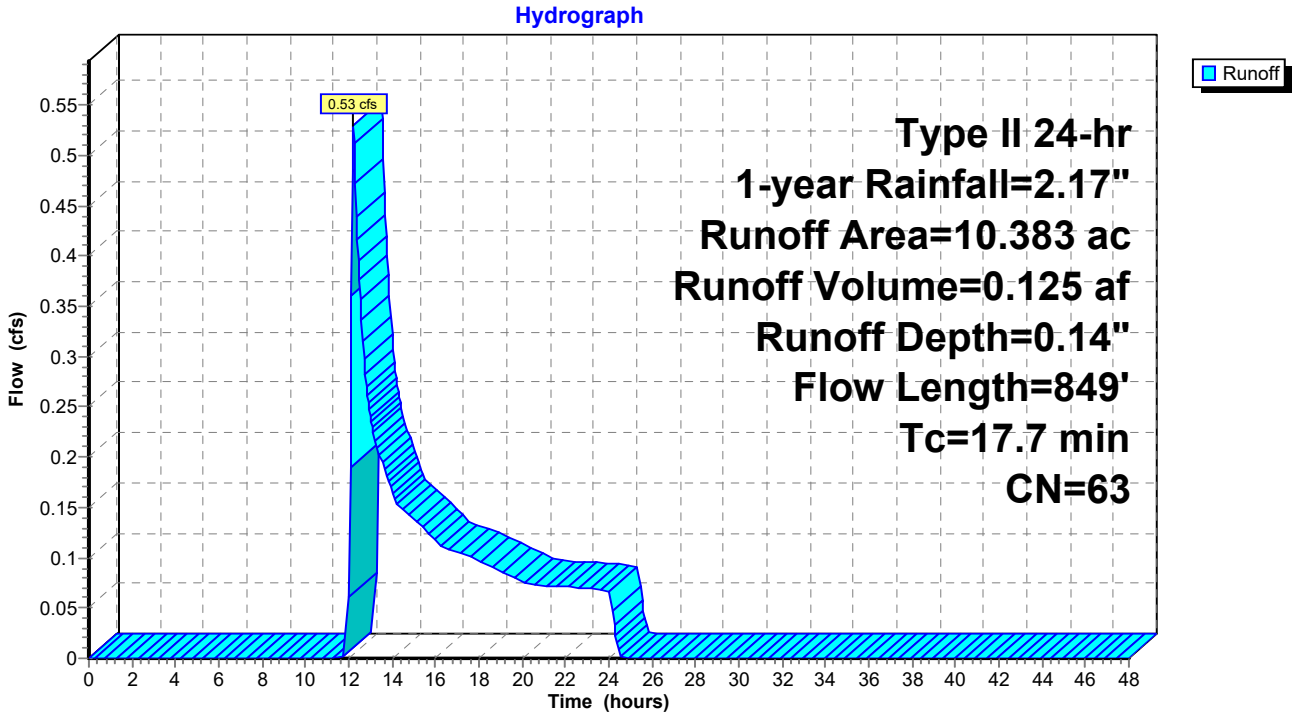
Runoff = 0.53 cfs @ 12.21 hrs, Volume= 0.125 af, Depth= 0.14"
Routed to Link SP13 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.019	98	Unconnected pavement, HSG D
0.120	96	Gravel surface, HSG D
1.784	58	Meadow, non-grazed, HSG B
4.488	71	Meadow, non-grazed, HSG C
3.647	55	Woods, Good, HSG B
0.325	70	Woods, Good, HSG C
10.383	63	Weighted Average
10.364		99.82% Pervious Area
0.019		0.18% Impervious Area
0.019		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0250	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.4	526	0.0540	1.63		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.7	62	0.0970	1.56		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	161	0.1330	1.82		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.7	849	Total			

Subcatchment 13S: Sub 13



Summary for Subcatchment 14S: Sub 14

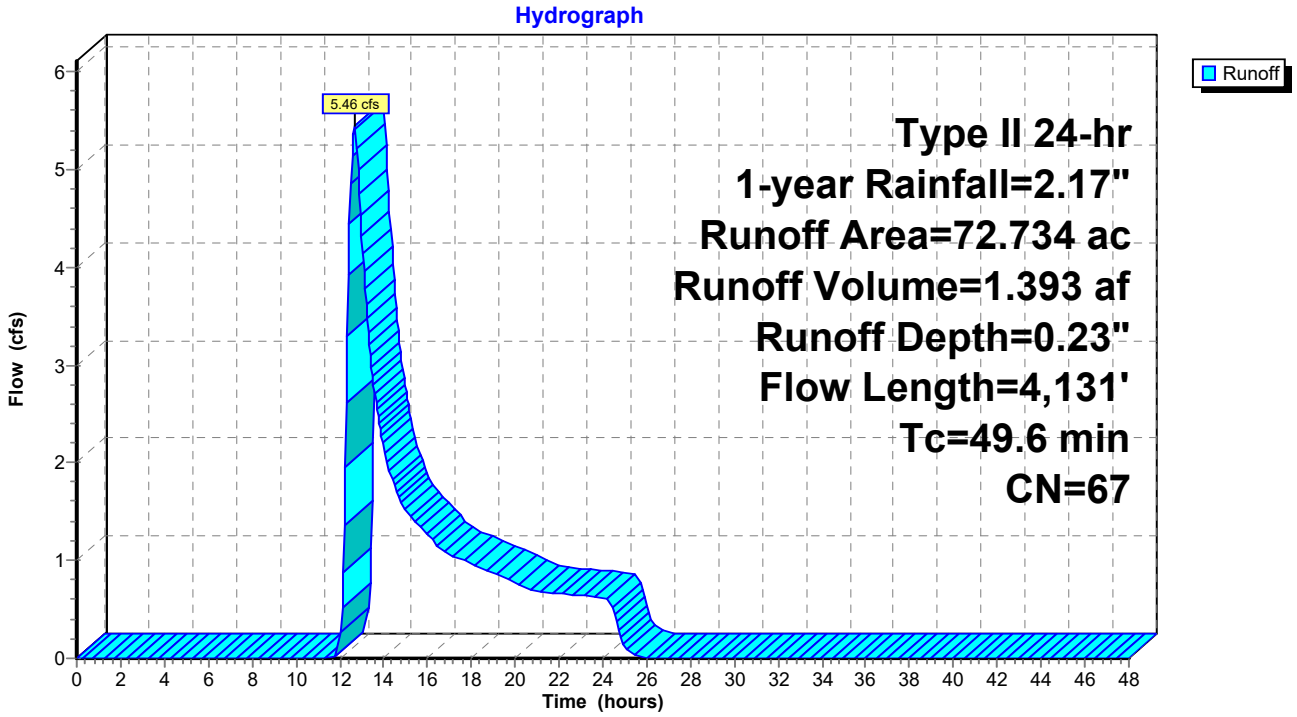
Runoff = 5.46 cfs @ 12.67 hrs, Volume= 1.393 af, Depth= 0.23"
Routed to Link SP14 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.667	48	Brush, Good, HSG B
0.121	65	Brush, Good, HSG C
1.517	73	Brush, Good, HSG D
0.307	98	Unconnected roofs, HSG D
19.939	58	Meadow, non-grazed, HSG B
36.007	71	Meadow, non-grazed, HSG C
0.100	78	Meadow, non-grazed, HSG D
0.760	80	>75% Grass cover, Good, HSG D
3.148	55	Woods, Good, HSG B
9.611	70	Woods, Good, HSG C
0.557	77	Woods, Good, HSG D
72.734	67	Weighted Average
72.427		99.58% Pervious Area
0.307		0.42% Impervious Area
0.307		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	50	0.0600	0.09		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
5.6	50	0.0280	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.7	465	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	1,433	0.0120	2.43	18.23	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=0.50' Z= 20.0 '/' Top.W=25.00' n= 0.030 Earth, grassed & winding
18.5	2,133	0.0080	1.93	7.70	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=0.50' Z= 6.0 '/' Top.W=11.00' n= 0.035 Earth, dense weeds
49.6	4,131	Total			

Subcatchment 14S: Sub 14



Summary for Subcatchment 17S: Sub 17

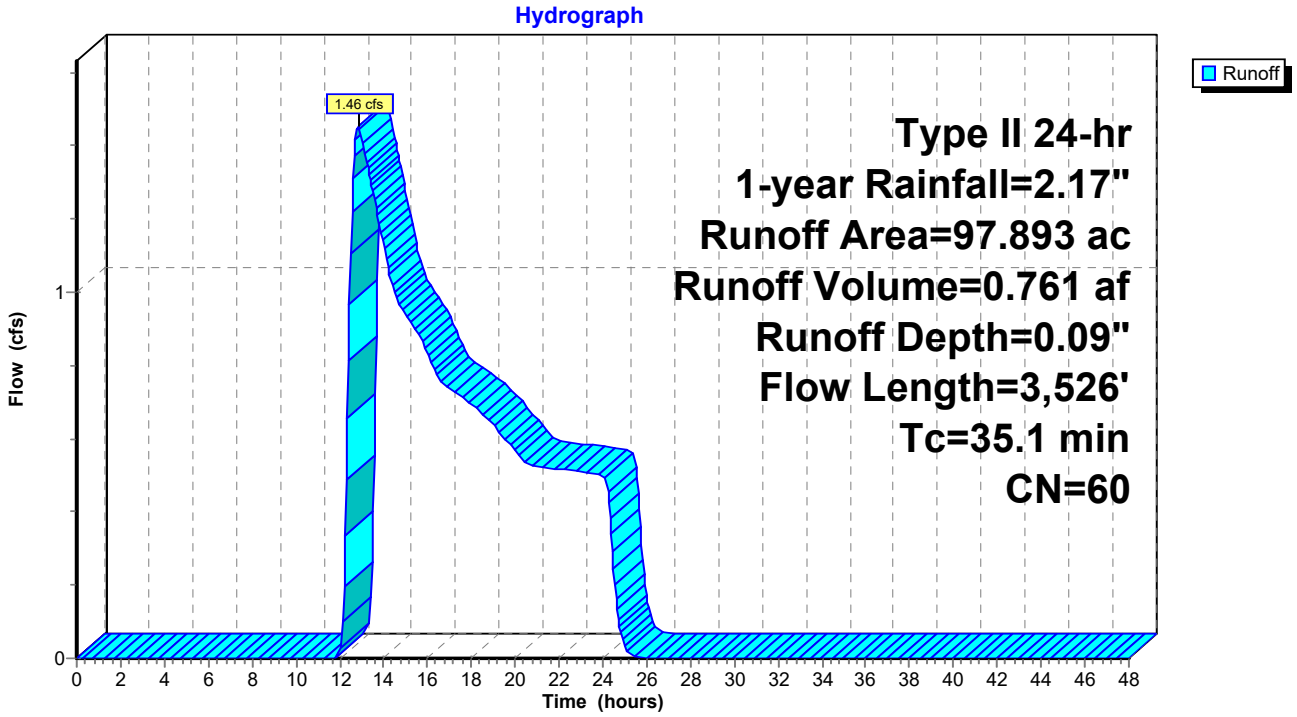
Runoff = 1.46 cfs @ 12.84 hrs, Volume= 0.761 af, Depth= 0.09"
Routed to Link SP17 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
1.139	96	Gravel surface, HSG D
1.153	98	Unconnected roofs, HSG D
77.902	58	Meadow, non-grazed, HSG B
0.464	71	Meadow, non-grazed, HSG C
4.651	78	Meadow, non-grazed, HSG D
3.000	61	>75% Grass cover, Good, HSG B
0.324	74	>75% Grass cover, Good, HSG C
1.232	80	>75% Grass cover, Good, HSG D
6.615	55	Woods, Good, HSG B
0.085	70	Woods, Good, HSG C
1.328	77	Woods, Good, HSG D
97.893	60	Weighted Average
96.740		98.82% Pervious Area
1.153		1.18% Impervious Area
1.153		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.2	681	0.0990	2.20		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.3	1,098	0.0650	1.78		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.2	1,647	0.0140	2.68	6.70	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 6.0 '/' Top.W=8.00' n= 0.030 Earth, grassed & winding
35.1	3,526	Total			

Subcatchment 17S: Sub 17



Summary for Subcatchment 18S: Sub 18

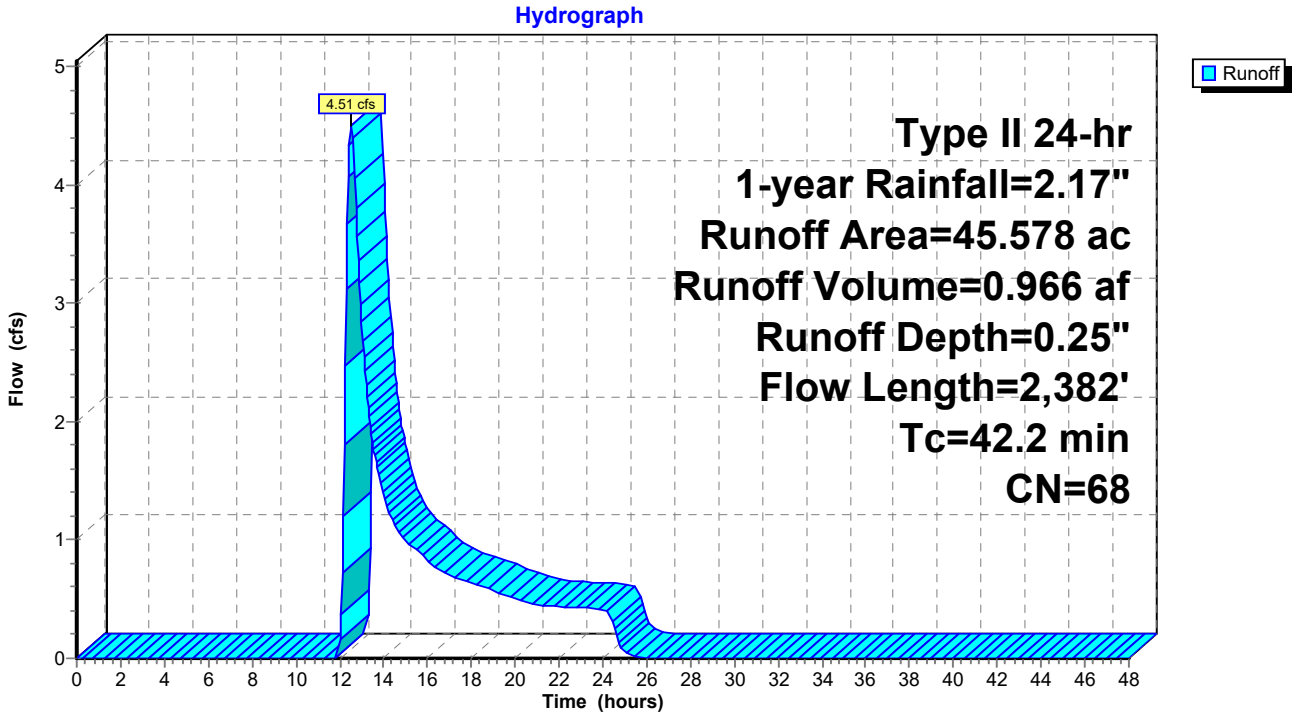
Runoff = 4.51 cfs @ 12.54 hrs, Volume= 0.966 af, Depth= 0.25"
Routed to Link SP18 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	3.098	48	Brush, Good, HSG B
	3.970	73	Brush, Good, HSG D
*	0.335	98	Pavement
	10.712	58	Meadow, non-grazed, HSG B
	19.406	71	Meadow, non-grazed, HSG C
	7.856	78	Meadow, non-grazed, HSG D
	0.101	77	Woods, Good, HSG D
*	0.100	96	Gravel road
	45.578	68	Weighted Average
	45.243		99.26% Pervious Area
	0.335		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	100	0.0180	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.5	668	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.5	459	0.0590	1.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	128	0.0130	0.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.9	1,027		1.33		**Direct Entry, CF**
42.2	2,382	Total			

Subcatchment 18S: Sub 18



Summary for Subcatchment 19S: Sub 19

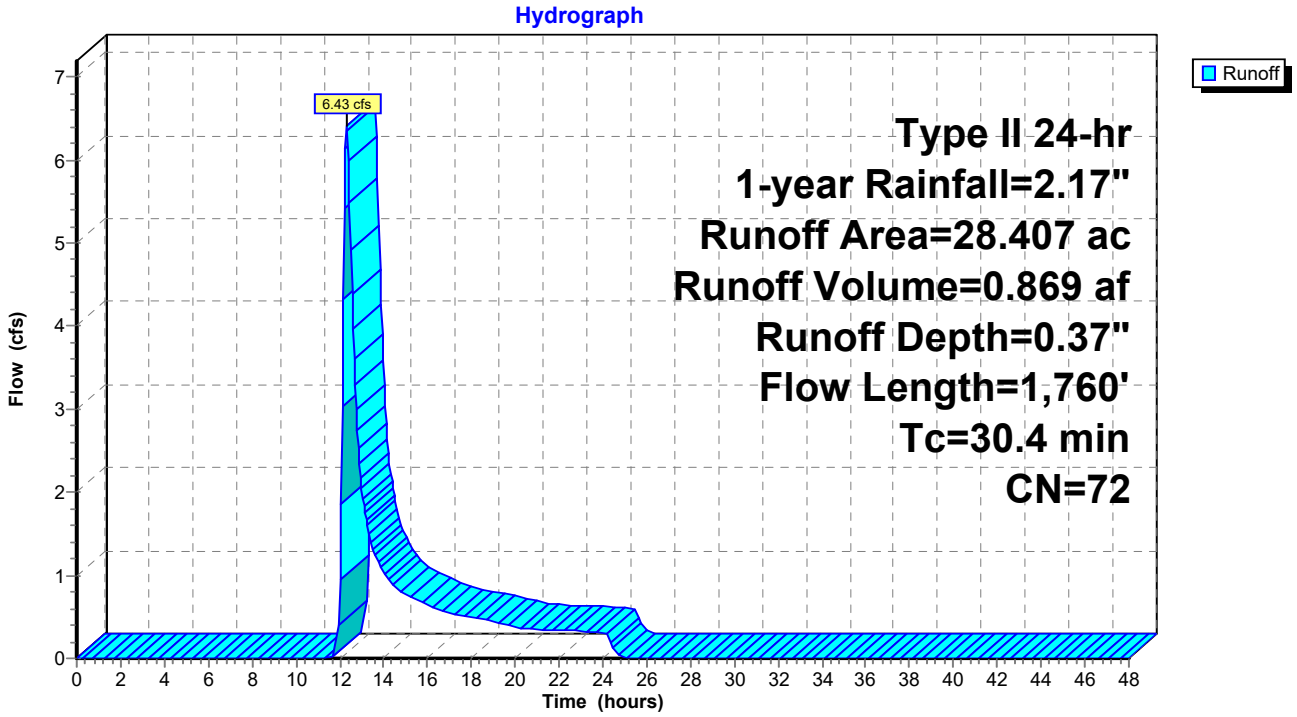
Runoff = 6.43 cfs @ 12.32 hrs, Volume= 0.869 af, Depth= 0.37"
Routed to Reach 20.1R : S-KCF-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.227	65	Brush, Good, HSG C
0.105	73	Brush, Good, HSG D
2.120	58	Meadow, non-grazed, HSG B
17.999	71	Meadow, non-grazed, HSG C
7.141	78	Meadow, non-grazed, HSG D
0.153	98	Water Surface, HSG D
0.125	77	Woods, Good, HSG D
0.537	96	Gravel surface, HSG D
28.407	72	Weighted Average
28.254		99.46% Pervious Area
0.153		0.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0430	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.5	212	0.1120	2.34		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.0	635	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.7	813	0.0330	1.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
30.4	1,760	Total			

Subcatchment 19S: Sub 19



Summary for Subcatchment 20S: Sub 20

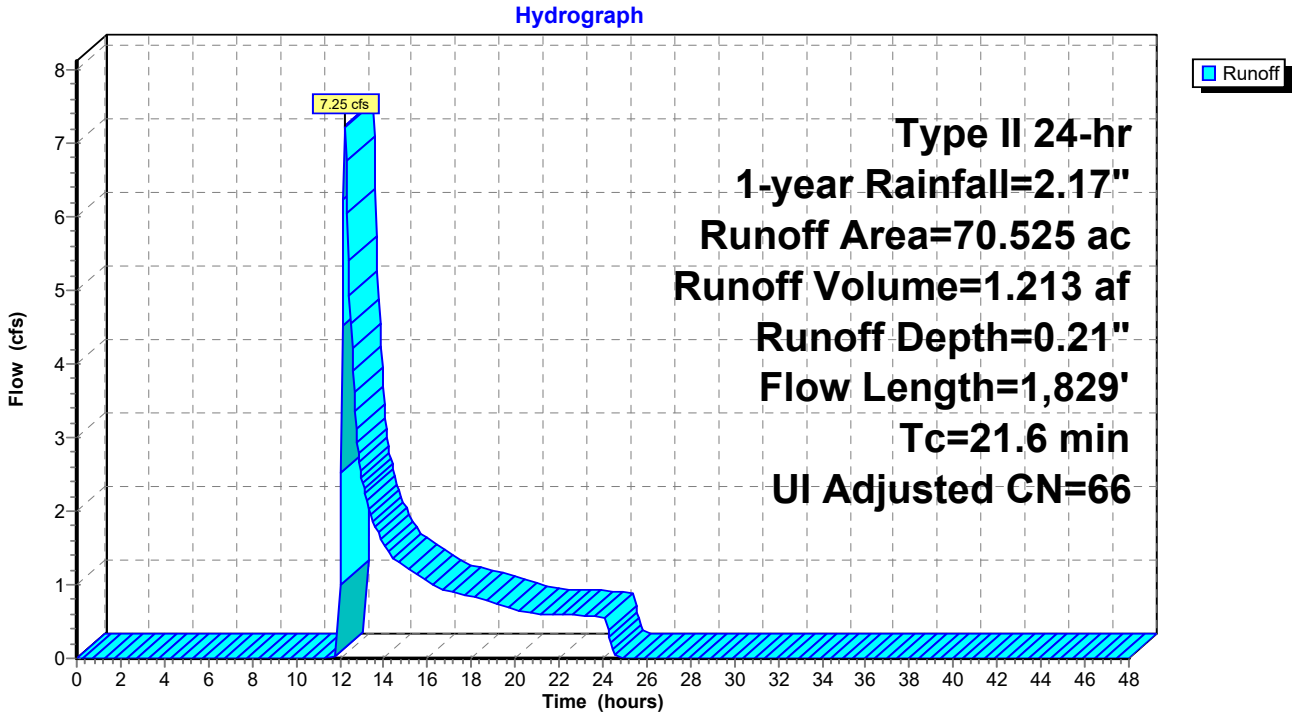
Runoff = 7.25 cfs @ 12.23 hrs, Volume= 1.213 af, Depth= 0.21"
Routed to Reach 20.1R : S-KCF-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Adj	Description
0.508	98		Unconnected roofs, HSG D
29.509	58		Meadow, non-grazed, HSG B
23.016	71		Meadow, non-grazed, HSG C
12.457	78		Meadow, non-grazed, HSG D
3.657	61		>75% Grass cover, Good, HSG B
0.124	55		Woods, Good, HSG B
0.222	70		Woods, Good, HSG C
0.015	77		Woods, Good, HSG D
0.044	98		Water Surface, HSG D
0.274	48		Brush, Good, HSG B
0.054	65		Brush, Good, HSG C
0.133	73		Brush, Good, HSG D
0.512	96		Gravel surface, HSG D
70.525	67	66	Weighted Average, UI Adjusted
69.973			99.22% Pervious Area
0.552			0.78% Impervious Area
0.508			92.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.6	259	0.0580	1.69		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.8	703	0.0360	1.33		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	767		3.65		**Direct Entry, CF**
21.6	1,829	Total			

Subcatchment 20S: Sub 20



Summary for Subcatchment 21S: Sub 21

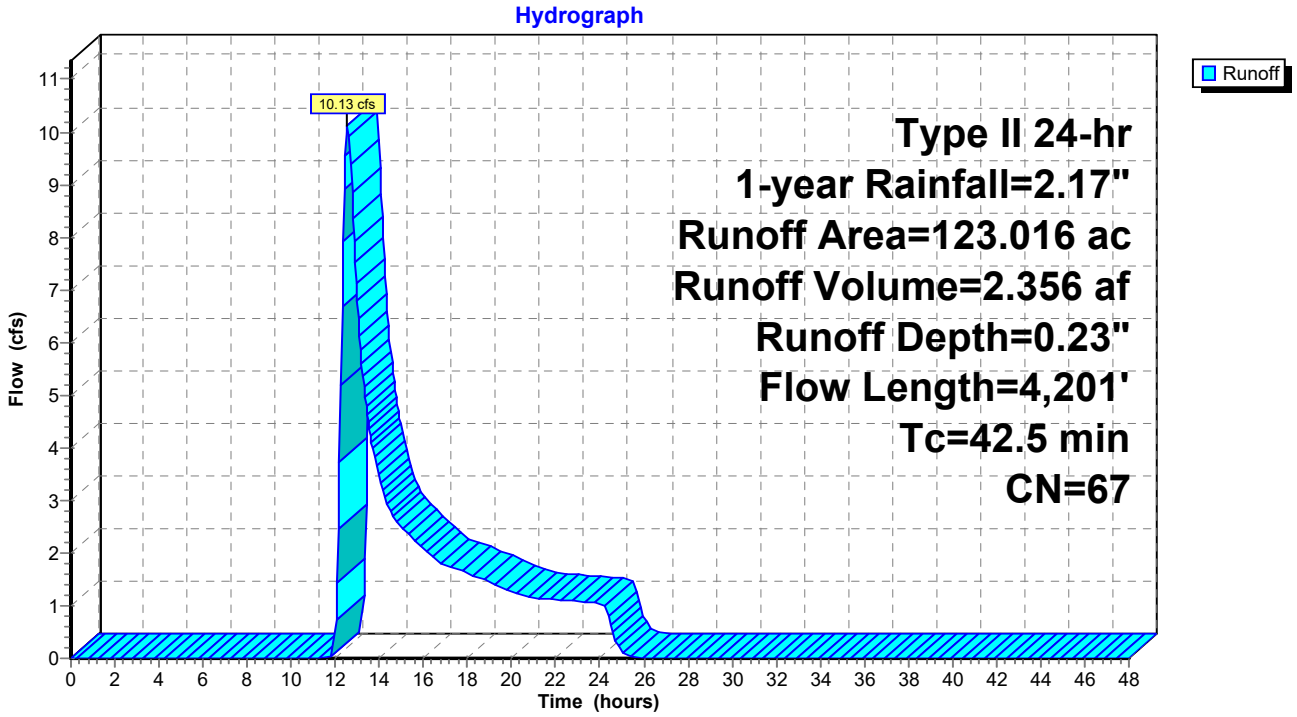
Runoff = 10.13 cfs @ 12.56 hrs, Volume= 2.356 af, Depth= 0.23"
Routed to Reach 22.1R : S-KCF-5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
2.223	96	Gravel surface, HSG D
0.950	98	Unconnected roofs, HSG D
50.366	58	Meadow, non-grazed, HSG B
57.844	71	Meadow, non-grazed, HSG C
3.445	78	Meadow, non-grazed, HSG D
3.145	98	Water Surface, HSG D
0.555	55	Woods, Good, HSG B
1.125	70	Woods, Good, HSG C
0.616	61	>75% Grass cover, Good, HSG B
1.689	74	>75% Grass cover, Good, HSG C
0.714	48	Brush, Good, HSG B
0.344	65	Brush, Good, HSG C
123.016	67	Weighted Average
118.921		96.67% Pervious Area
4.095		3.33% Impervious Area
0.950		23.20% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0160	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
12.6	1,112	0.0440	1.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	346	0.0150	2.58	13.52	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 9.0 '/' Top.W=15.00' n= 0.035 Earth, dense weeds
8.3	1,504	0.0150	3.03	15.15	**Trap/Vee/Rect Channel Flow,** Bot.W=9.00' D=0.50' Z= 2.0 '/' Top.W=11.00' n= 0.035 Earth, dense weeds
7.3	1,139	0.0110	2.60	12.98	**Trap/Vee/Rect Channel Flow,** Bot.W=9.00' D=0.50' Z= 2.0 '/' Top.W=11.00' n= 0.035 Earth, dense weeds
42.5	4,201	Total			

Subcatchment 21S: Sub 21



Summary for Subcatchment 22S: Sub 22

[47] Hint: Peak is 483% of capacity of segment #7

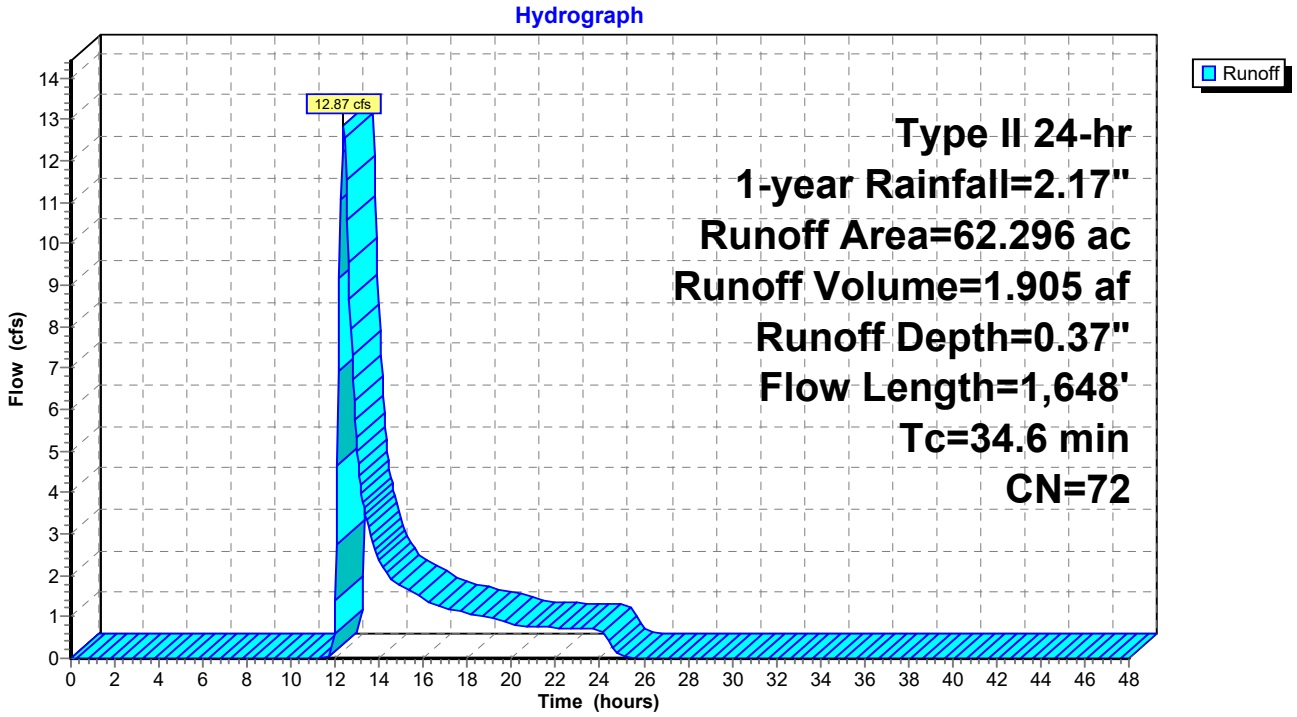
Runoff = 12.87 cfs @ 12.37 hrs, Volume= 1.905 af, Depth= 0.37"
Routed to Link SP22 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
1.623	96	Gravel surface, HSG D
4.694	58	Meadow, non-grazed, HSG B
43.712	71	Meadow, non-grazed, HSG C
9.237	78	Meadow, non-grazed, HSG D
0.118	55	Woods, Good, HSG B
0.413	70	Woods, Good, HSG C
1.693	77	Woods, Good, HSG D
0.373	98	Unconnected pavement, HSG D
0.303	48	Brush, Good, HSG B
0.130	65	Brush, Good, HSG C
62.296	72	Weighted Average
61.923		99.40% Pervious Area
0.373		0.60% Impervious Area
0.373		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.1	303	0.0260	2.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
3.1	240	0.0330	1.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.6	256	0.0120	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.6	78	0.0250	0.79		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
11.3	515	0.0230	0.76		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	156	0.0070	1.78	2.67	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
34.6	1,648	Total			

Subcatchment 22S: Sub 22



Summary for Subcatchment 23.1: Sub 23.1

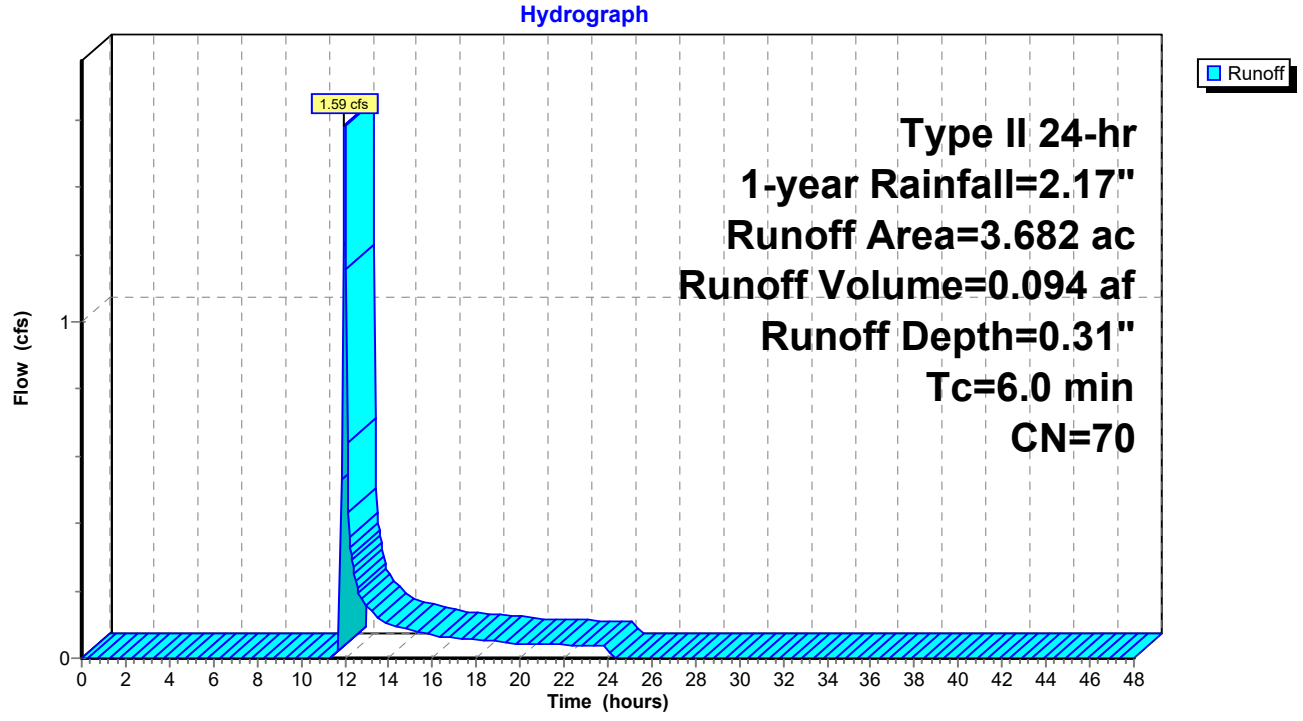
Runoff = 1.59 cfs @ 12.00 hrs, Volume= 0.094 af, Depth= 0.31"
Routed to Pond 23.1P : 23.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
*	0.928	96	Gravel
	2.257	58	Meadow, non-grazed, HSG B
	0.497	78	Meadow, non-grazed, HSG D
	3.682	70	Weighted Average
	3.682		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 23.1: Sub 23.1



Summary for Subcatchment 23S: Sub 23

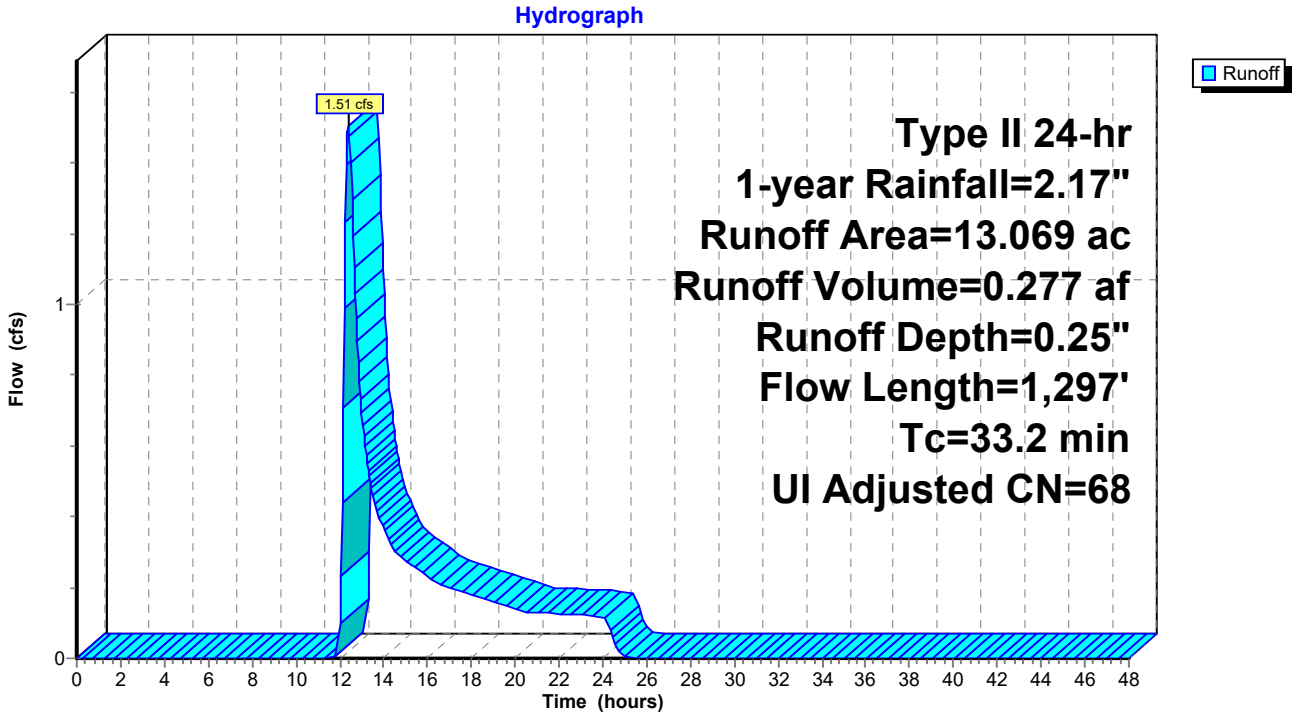
Runoff = 1.51 cfs @ 12.39 hrs, Volume= 0.277 af, Depth= 0.25"
Routed to Link SP23 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Adj	Description
0.012	48		Brush, Good, HSG B
0.040	65		Brush, Good, HSG C
0.387	98		Unconnected roofs, HSG D
2.687	58		Meadow, non-grazed, HSG B
9.525	71		Meadow, non-grazed, HSG C
0.031	55		Woods, Good, HSG B
0.387	61		>75% Grass cover, Good, HSG B
13.069	69	68	Weighted Average, UI Adjusted
12.682			97.04% Pervious Area
0.387			2.96% Impervious Area
0.387			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0760	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
15.8	892	0.0180	0.94		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	262	0.0490	1.55		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	43		1.79		**Direct Entry,**
33.2	1,297	Total			

Subcatchment 23S: Sub 23



Summary for Subcatchment 24S: Sub 24

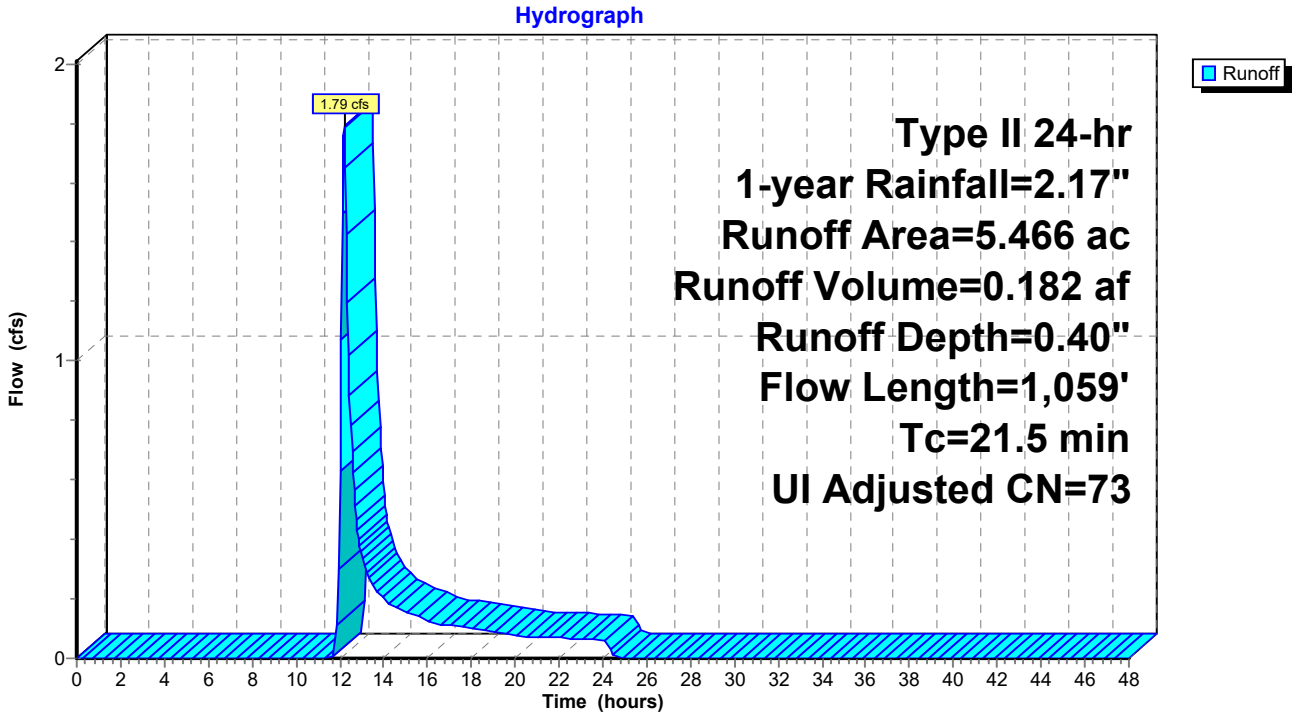
Runoff = 1.79 cfs @ 12.18 hrs, Volume= 0.182 af, Depth= 0.40"
Routed to Link SP24 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Adj	Description
0.036	96		Gravel surface, HSG D
0.421	98		Unconnected roofs, HSG D
0.252	58		Meadow, non-grazed, HSG B
2.730	71		Meadow, non-grazed, HSG C
0.093	61		>75% Grass cover, Good, HSG B
1.916	74		>75% Grass cover, Good, HSG C
0.018	70		Woods, Good, HSG C
5.466	74	73	Weighted Average, UI Adjusted
5.045			92.30% Pervious Area
0.421			7.70% Impervious Area
0.421			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0080	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.5	156	0.0610	1.73		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.6	294	0.0200	3.01	4.51	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
2.4	509	0.0220	3.47	13.02	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 3.0 '/' Top.W=9.00' n= 0.035 Earth, dense weeds
21.5	1,059	Total			

Subcatchment 24S: Sub 24



Summary for Subcatchment 43: Subcat 43

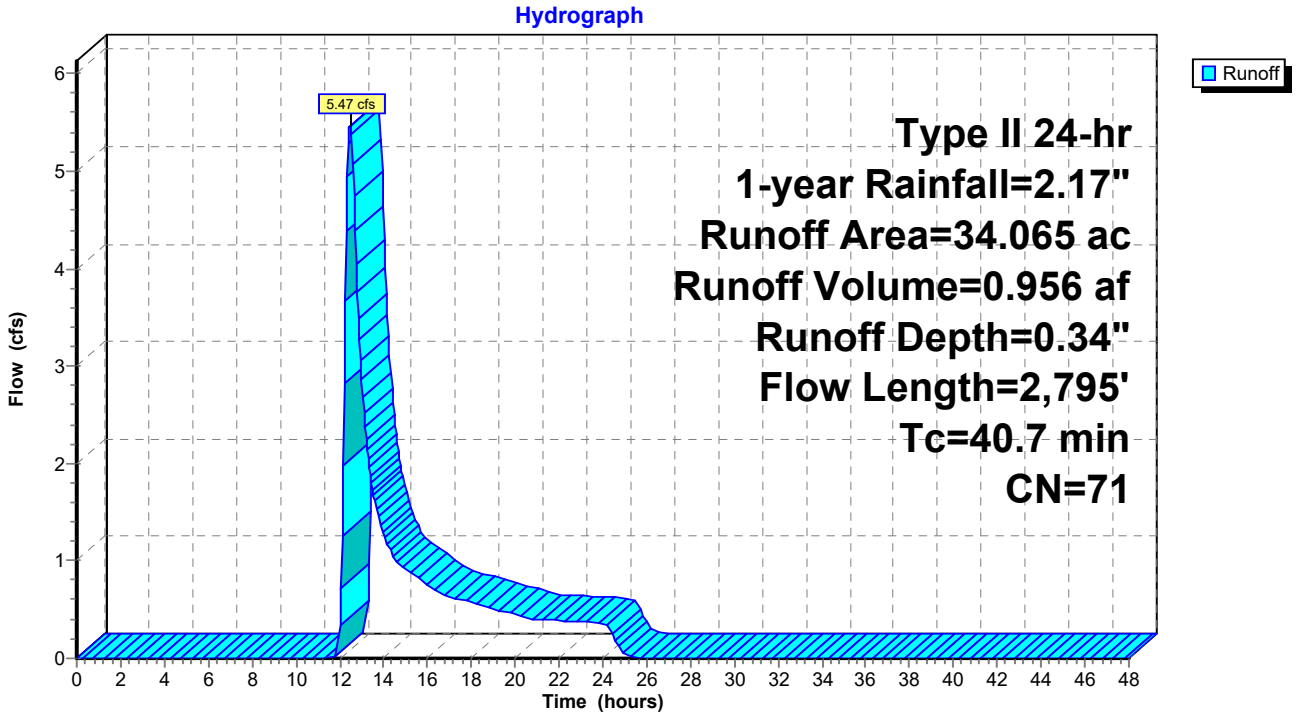
Runoff = 5.47 cfs @ 12.47 hrs, Volume= 0.956 af, Depth= 0.34"
Routed to Reach 44R :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
*	1.452	96	Gravel Impervious
	0.107	48	Brush, Good, HSG B
	0.109	65	Brush, Good, HSG C
	2.252	73	Brush, Good, HSG D
	0.186	30	Meadow, non-grazed, HSG A
	1.295	58	Meadow, non-grazed, HSG B
	17.175	71	Meadow, non-grazed, HSG C
	4.209	78	Meadow, non-grazed, HSG D
	0.092	98	Unconnected roofs, HSG C
	1.648	30	Woods, Good, HSG A
	0.349	55	Woods, Good, HSG B
	1.914	70	Woods, Good, HSG C
	3.277	77	Woods, Good, HSG D
	34.065	71	Weighted Average
	33.973		99.73% Pervious Area
	0.092		0.27% Impervious Area
	0.092		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
26.2	1,556	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.1	1,139	0.0320	3.76	13.15	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 2.0 '/' Top.W=8.00' n= 0.040 Winding stream, pools & shoals
40.7	2,795	Total			

Subcatchment 43: Subcat 43



Summary for Subcatchment 44.1S: 44.1S

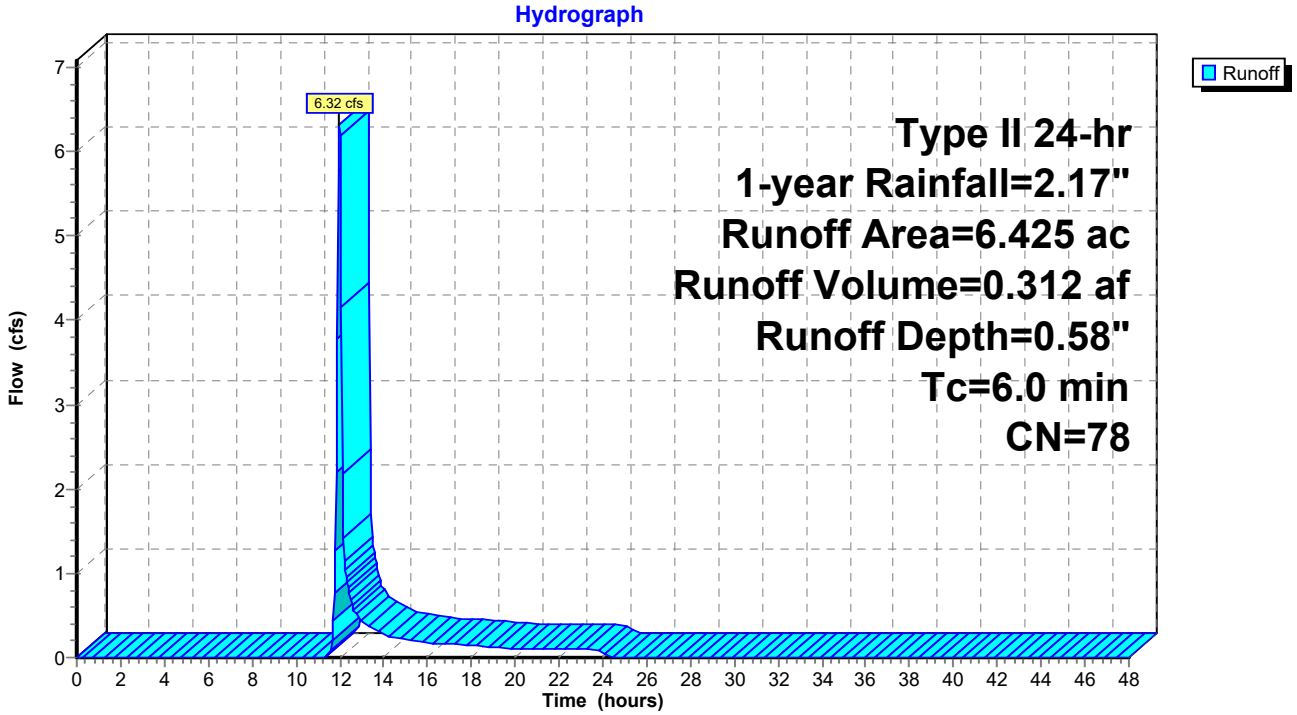
Runoff = 6.32 cfs @ 11.98 hrs, Volume= 0.312 af, Depth= 0.58"
Routed to Pond 44.1P : 44.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
*	0.766	96	Gravel
	1.461	77	Woods, Good, HSG D
	1.511	71	Meadow, non-grazed, HSG C
	2.687	78	Meadow, non-grazed, HSG D
	6.425	78	Weighted Average
	6.425		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 44.1S: 44.1S



Summary for Subcatchment 44S: 44S

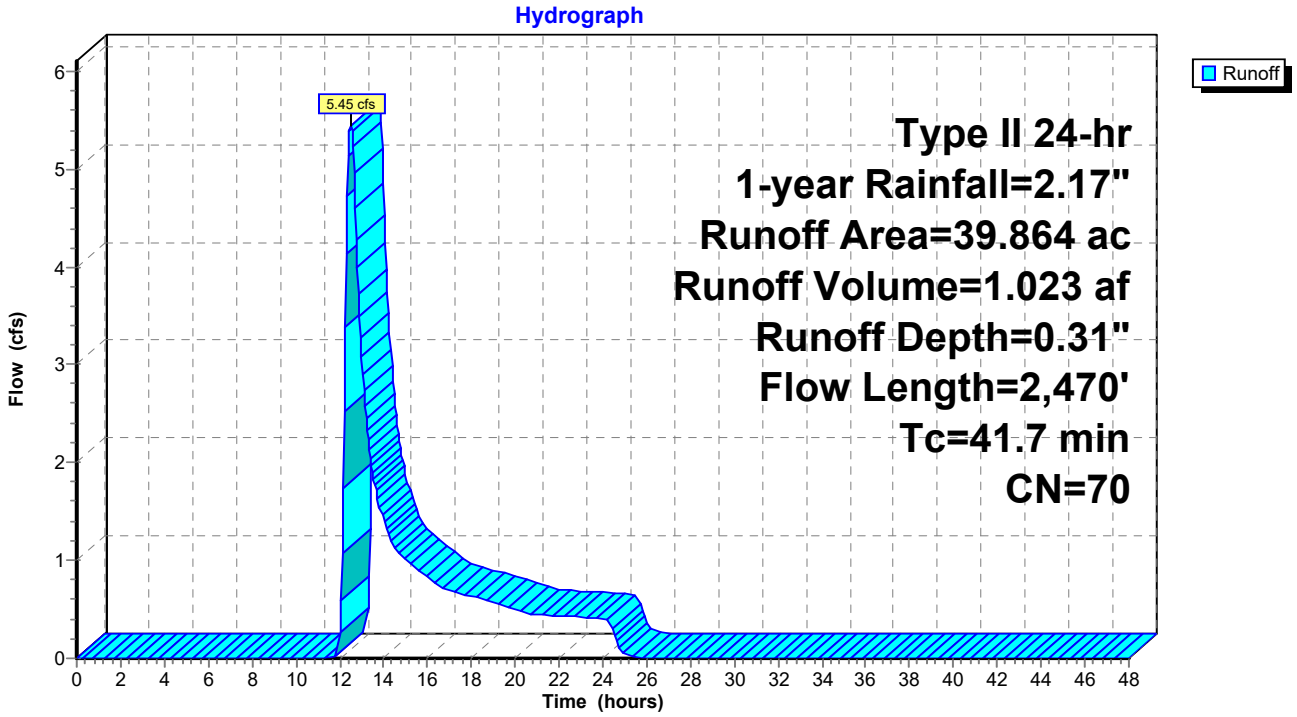
Runoff = 5.45 cfs @ 12.50 hrs, Volume= 1.023 af, Depth= 0.31"
Routed to Reach 45R :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
*	1.144	96	Gravel
	6.222	55	Woods, Good, HSG B
	7.156	70	Woods, Good, HSG C
	0.180	58	Meadow, non-grazed, HSG B
	6.882	71	Meadow, non-grazed, HSG C
	1.418	30	Woods, Good, HSG A
	0.291	30	Meadow, non-grazed, HSG A
	6.908	78	Meadow, non-grazed, HSG D
	9.663	77	Woods, Good, HSG D
	39.864	70	Weighted Average
	39.864		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.9	100	0.0260	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
9.2	409	0.0220	0.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
5.2	715	0.0320	2.31	5.55	**Parabolic Channel,** W=18.00' D=0.20' Area=2.4 sf Perim=18.0' n= 0.030 Earth, grassed & winding
5.4	1,246	0.0350	3.83	14.37	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 3.0 '/' Top.W=9.00' n= 0.040 Earth, cobble bottom, clean sides
41.7	2,470	Total			

Subcatchment 44S: 44S



Summary for Subcatchment 45: Subcat 45

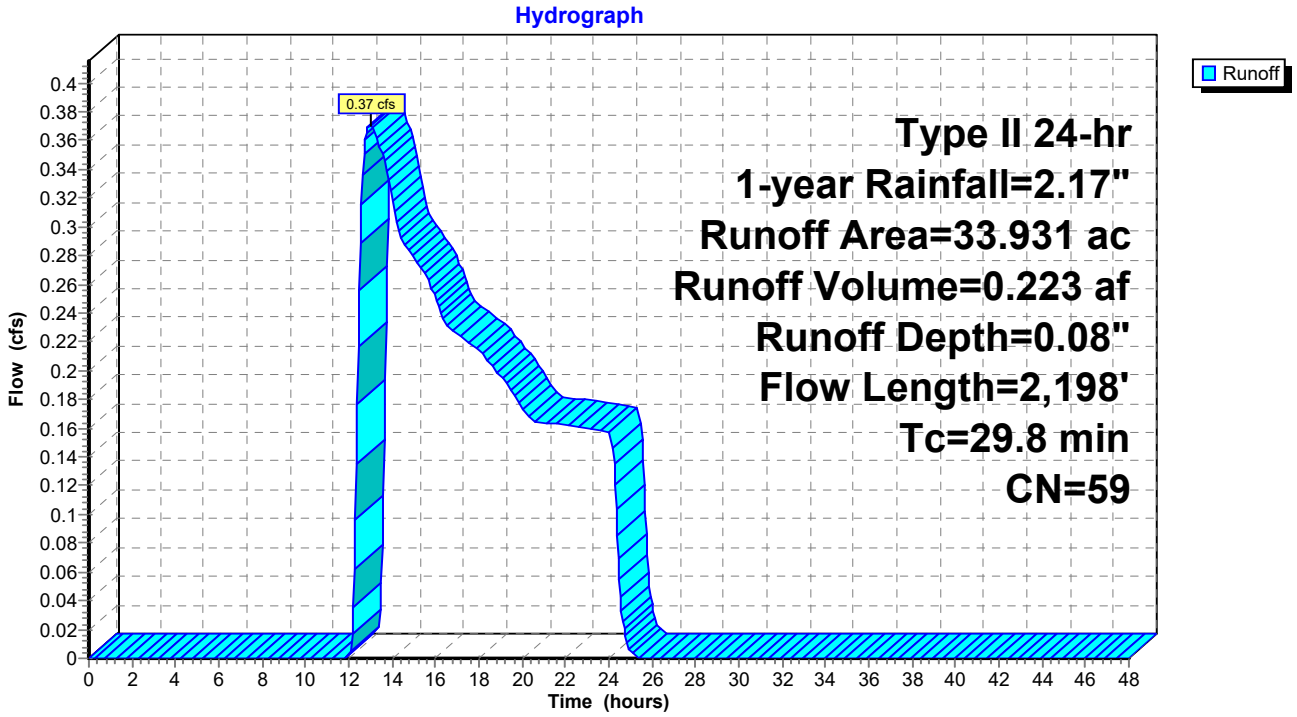
Runoff = 0.37 cfs @ 13.00 hrs, Volume= 0.223 af, Depth= 0.08"
Routed to Link SP43 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
1.898	48	Brush, Good, HSG B
0.038	65	Brush, Good, HSG C
1.297	30	Meadow, non-grazed, HSG A
13.561	58	Meadow, non-grazed, HSG B
7.566	71	Meadow, non-grazed, HSG C
3.033	78	Meadow, non-grazed, HSG D
0.074	98	Unconnected roofs, HSG C
2.408	30	Woods, Good, HSG A
3.386	55	Woods, Good, HSG B
0.357	70	Woods, Good, HSG C
0.313	77	Woods, Good, HSG D
33.931	59	Weighted Average
33.857		99.78% Pervious Area
0.074		0.22% Impervious Area
0.074		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0150	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.5	396	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	223	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	196	0.0360	0.95		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
5.7	1,283	0.0370	3.77	10.38	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=0.50' Z= 3.0 '/' Top.W=7.00' n= 0.040 Winding stream, pools & shoals
29.8	2,198	Total			

Subcatchment 45: Subcat 45



Summary for Subcatchment 46.1S: 46.1S

[45] Hint: Runoff=Zero

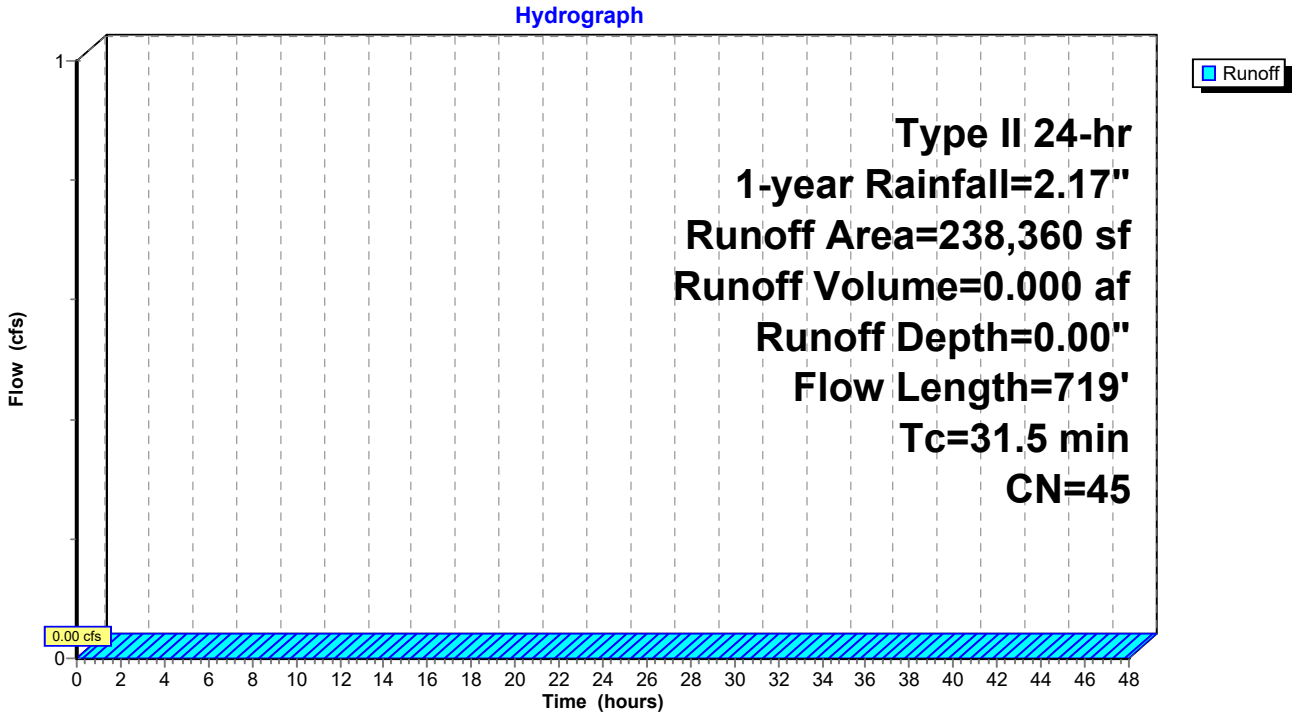
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Pond 46.1P : 46.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (sf)	CN	Description
	8,544	30	Meadow, non-grazed, HSG A
	5,734	58	Meadow, non-grazed, HSG B
	127,528	55	Woods, Good, HSG B
	5,825	30	Brush, Good, HSG A
*	3,183	96	Gravel
	87,546	30	Woods, Good, HSG A
	238,360	45	Weighted Average
	238,360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.2	100	0.0250	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
7.7	389	0.0280	0.84		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.6	230	0.2300	2.40		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	719	Total			

Subcatchment 46.1S: 46.1S



Summary for Subcatchment 46S: Subcat 46

[45] Hint: Runoff=Zero

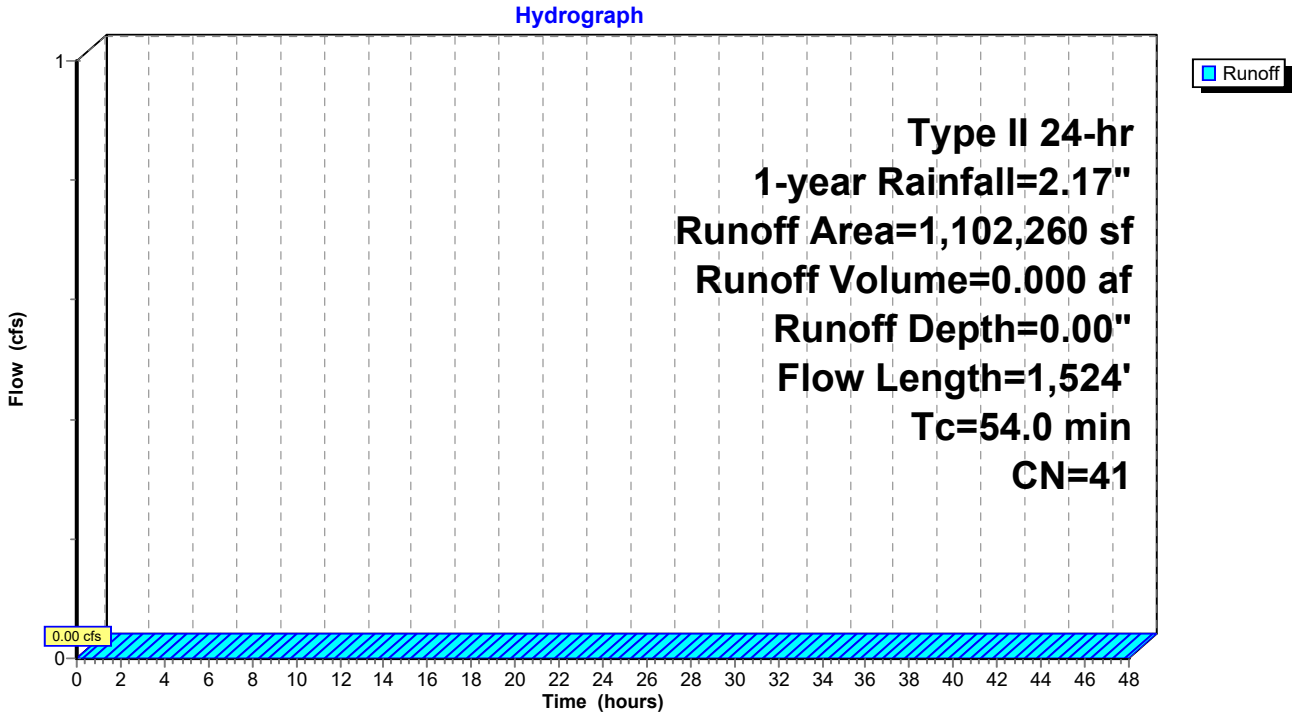
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link SP46 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (sf)	CN	Description
	26,889	30	Brush, Good, HSG A
	7,928	48	Brush, Good, HSG B
	114,992	30	Meadow, non-grazed, HSG A
	61,059	58	Meadow, non-grazed, HSG B
	537,985	30	Woods, Good, HSG A
	282,460	55	Woods, Good, HSG B
	48,918	77	Woods, Good, HSG D
*	22,029	96	Gravel
	1,102,260	41	Weighted Average
	1,102,260		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
36.5	774	0.0050	0.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
5.2	153	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	245	0.4120	3.21		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	79	0.0510	1.13		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.4	173		6.95		**Lake or Reservoir,** Mean Depth= 1.50'
54.0	1,524	Total			

Subcatchment 46S: Subcat 46



Summary for Subcatchment 47S: Sub 47

[45] Hint: Runoff=Zero

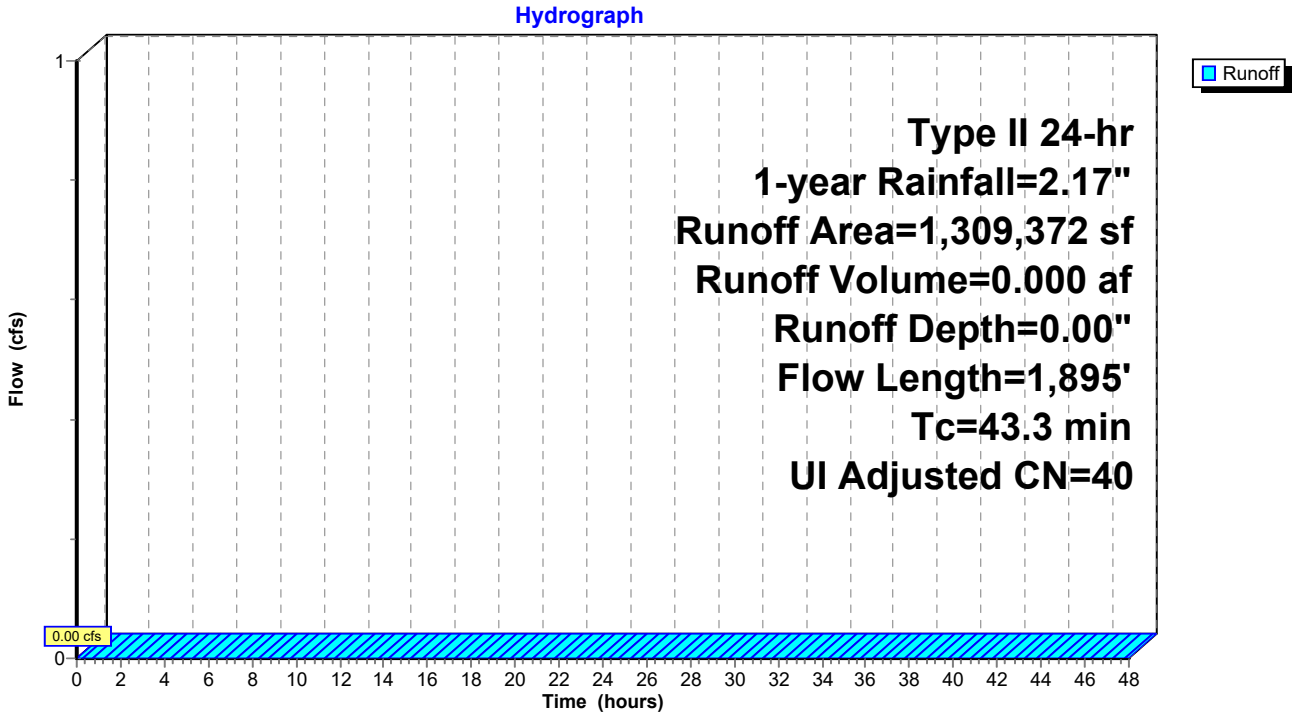
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link SP47 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (sf)	CN	Adj	Description
16,402	98		Unconnected pavement, HSG D
18,822	96		Gravel surface, HSG D
21,696	39		>75% Grass cover, Good, HSG A
88,176	61		>75% Grass cover, Good, HSG B
766,671	30		Meadow, non-grazed, HSG A
115,153	58		Meadow, non-grazed, HSG B
2,236	30		Brush, Good, HSG A
30,584	48		Brush, Good, HSG B
47,190	30		Woods, Good, HSG A
202,442	55		Woods, Good, HSG B
1,309,372	41	40	Weighted Average, UI Adjusted
1,292,970			98.75% Pervious Area
16,402			1.25% Impervious Area
16,402			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.2550	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
25.9	1,688	0.0240	1.08		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	107	0.0280	0.84		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
43.3	1,895	Total			

Subcatchment 47S: Sub 47



Summary for Reach 6R: W-NSD-35

Inflow Area = 58.963 ac, 0.00% Impervious, Inflow Depth = 0.28" for 1-year event
Inflow = 5.24 cfs @ 12.85 hrs, Volume= 1.378 af
Outflow = 4.92 cfs @ 13.26 hrs, Volume= 1.378 af, Atten= 6%, Lag= 24.6 min
Routed to Link SP5 :

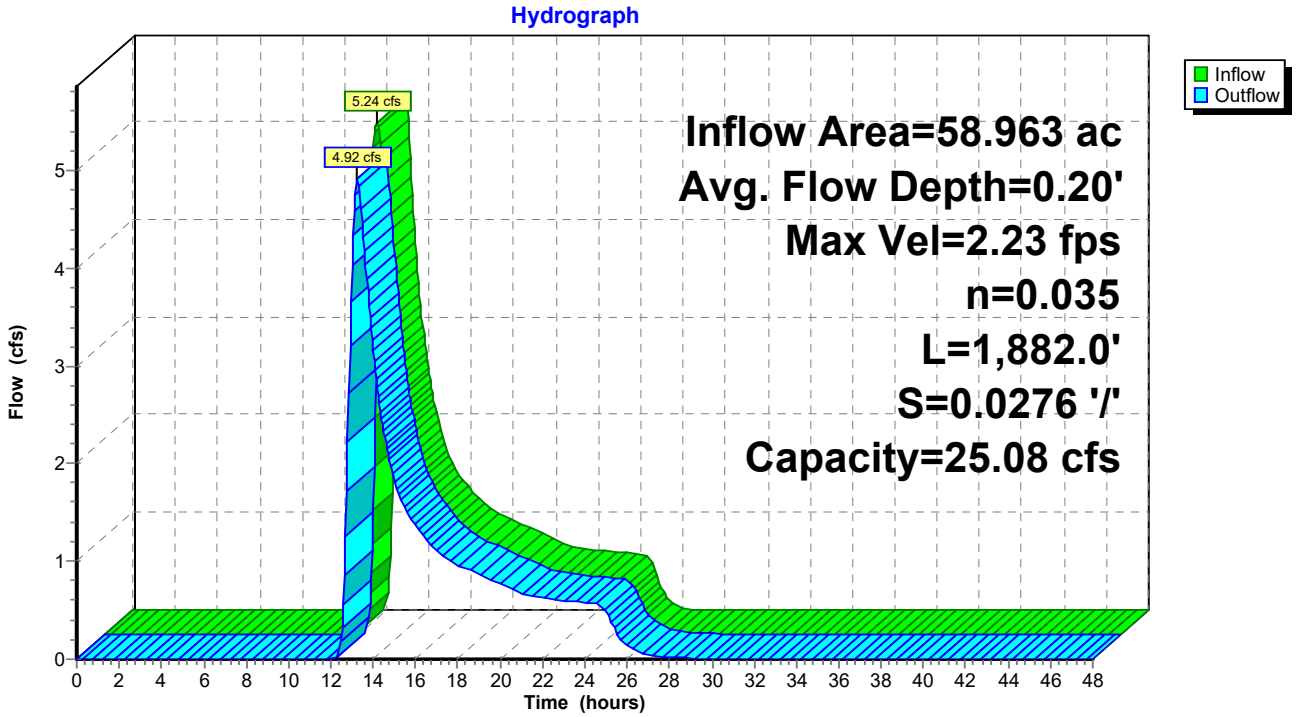
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.23 fps, Min. Travel Time= 14.1 min
Avg. Velocity = 0.66 fps, Avg. Travel Time= 47.8 min

Peak Storage= 4,151 cf @ 13.03 hrs
Average Depth at Peak Storage= 0.20' , Surface Width= 12.37'
Bank-Full Depth= 0.50' Flow Area= 6.5 sf, Capacity= 25.08 cfs

10.00' x 0.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 16.00'
Length= 1,882.0' Slope= 0.0276 '/'
Inlet Invert= 542.00', Outlet Invert= 490.00'

‡

Reach 6R: W-NSD-35



Summary for Reach 13.1R:

[79] Warning: Submerged Pond 12P Primary device # 1 OUTLET by 0.08'

Inflow Area = 4.859 ac, 53.67% Impervious, Inflow Depth = 1.84" for 1-year event
Inflow = 1.40 cfs @ 12.38 hrs, Volume= 0.745 af
Outflow = 1.40 cfs @ 12.41 hrs, Volume= 0.745 af, Atten= 0%, Lag= 2.1 min
Routed to Reach 13.2R :

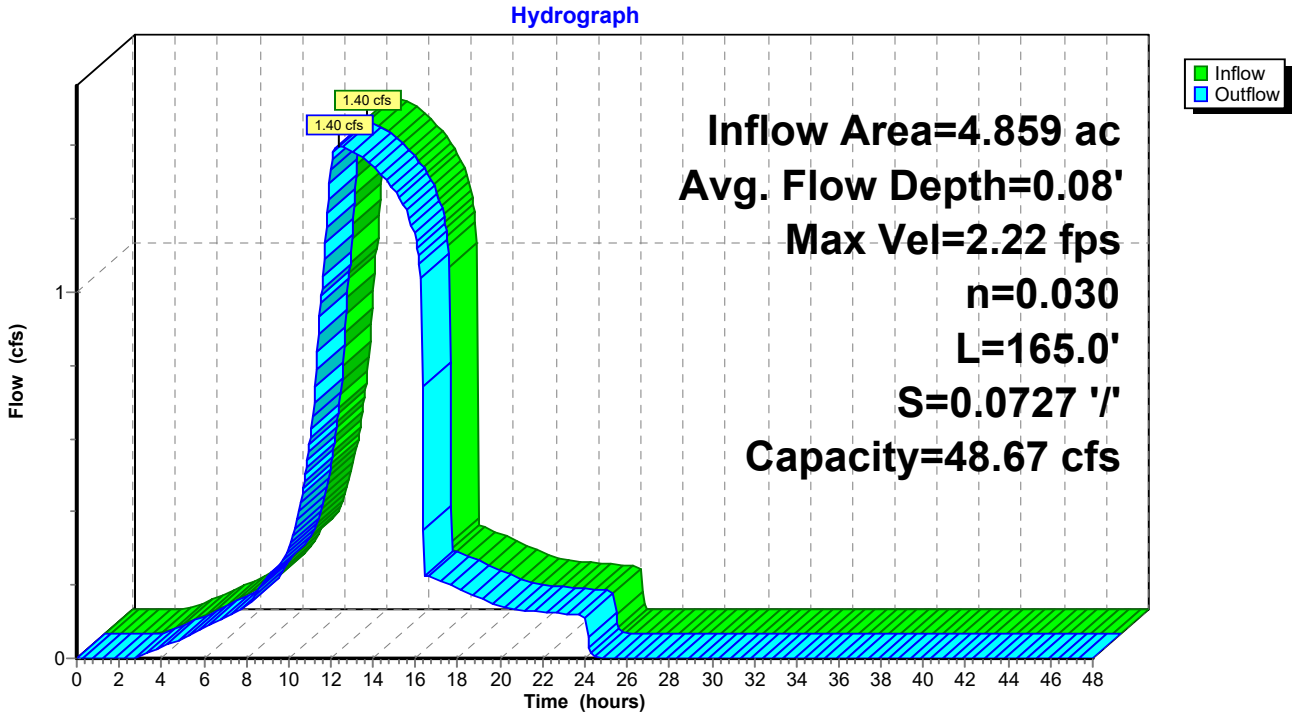
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.22 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.23 fps, Avg. Travel Time= 2.2 min

Peak Storage= 104 cf @ 12.39 hrs
Average Depth at Peak Storage= 0.08' , Surface Width= 9.29'
Bank-Full Depth= 0.50' Flow Area= 8.0 sf, Capacity= 48.67 cfs

6.00' x 0.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 20.0 '/' Top Width= 26.00'
Length= 165.0' Slope= 0.0727 '/'
Inlet Invert= 504.00', Outlet Invert= 492.00'

‡

Reach 13.1R:


Hydrograph
Inflow
Outflow
1.40 cfs
1.40 cfs
Inflow Area=4.859 ac
Avg. Flow Depth=0.08'
Max Vel=2.22 fps
n=0.030
L=165.0'
S=0.0727 '/'
Capacity=48.67 cfs
Flow (cfs)
Time (hours)
0
1
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

Summary for Reach 13.2R:

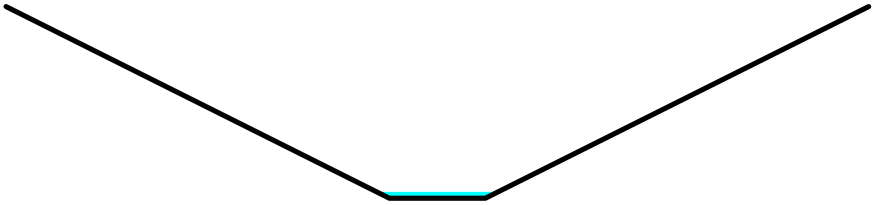
[62] Hint: Exceeded Reach 13.1R OUTLET depth by 0.05' @ 12.45 hrs

Inflow Area = 4.859 ac, 53.67% Impervious, Inflow Depth = 1.84" for 1-year event
Inflow = 1.40 cfs @ 12.41 hrs, Volume= 0.745 af
Outflow = 1.40 cfs @ 12.44 hrs, Volume= 0.745 af, Atten= 0%, Lag= 1.4 min
Routed to Link SP13 :

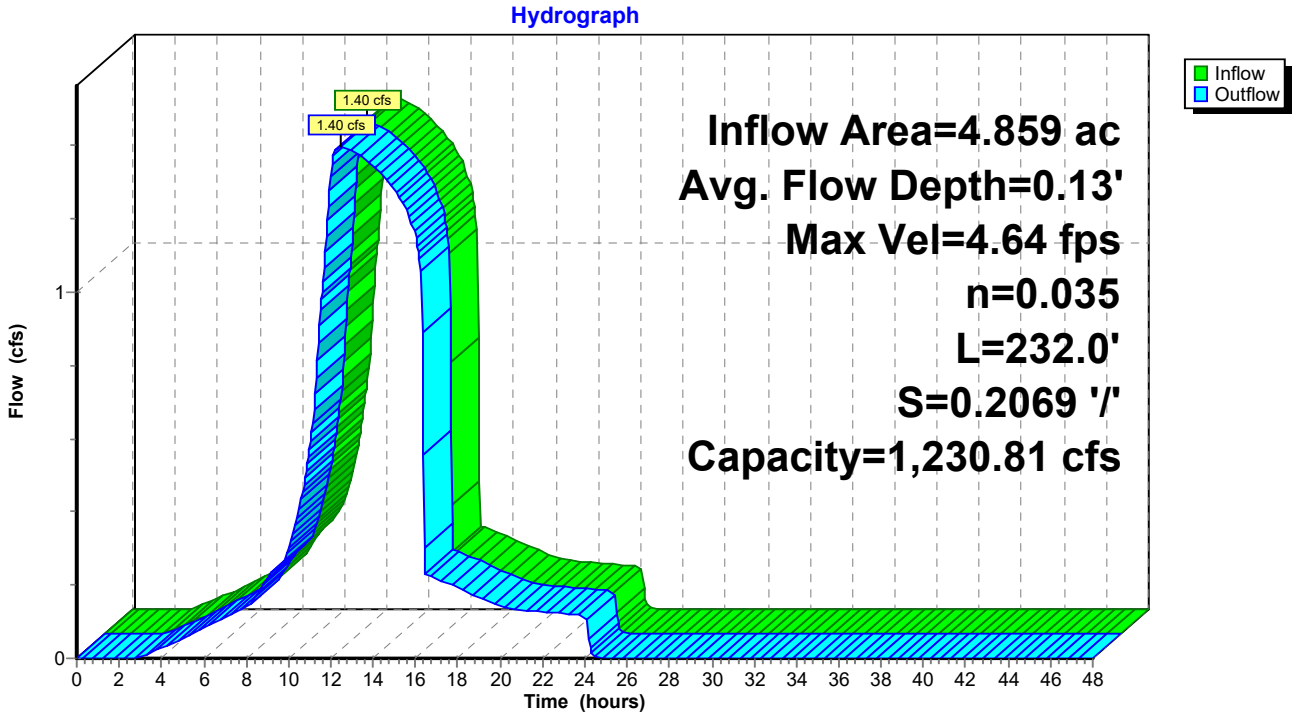
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.64 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 2.80 fps, Avg. Travel Time= 1.4 min

Peak Storage= 70 cf @ 12.42 hrs
Average Depth at Peak Storage= 0.13' , Surface Width= 2.53'
Bank-Full Depth= 4.00' Flow Area= 40.0 sf, Capacity= 1,230.81 cfs

2.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 '/' Top Width= 18.00'
Length= 232.0' Slope= 0.2069 '/'
Inlet Invert= 492.00', Outlet Invert= 444.00'



Reach 13.2R:


Hydrograph
Inflow
Outflow
1.40 cfs
1.40 cfs
Inflow Area=4.859 ac
Avg. Flow Depth=0.13'
Max Vel=4.64 fps
n=0.035
L=232.0'
S=0.2069 '/'
Capacity=1,230.81 cfs
Flow (cfs)
0
1
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Reach 20.1R: S-KCF-6

Inflow Area = 98.932 ac, 0.71% Impervious, Inflow Depth = 0.25" for 1-year event
Inflow = 13.40 cfs @ 12.27 hrs, Volume= 2.082 af
Outflow = 10.19 cfs @ 12.70 hrs, Volume= 2.082 af, Atten= 24%, Lag= 26.0 min
Routed to Reach 20.2R :

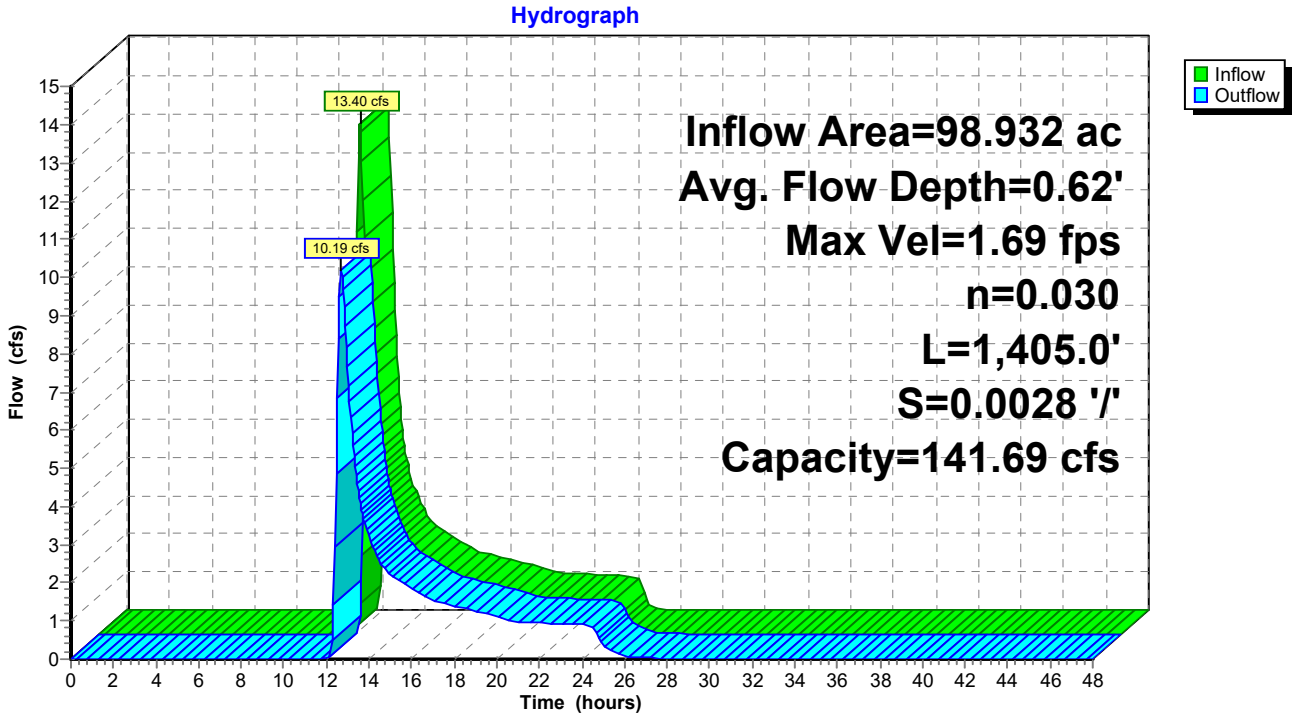
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.69 fps, Min. Travel Time= 13.9 min
Avg. Velocity = 0.54 fps, Avg. Travel Time= 43.6 min

Peak Storage= 8,519 cf @ 12.46 hrs
Average Depth at Peak Storage= 0.62' , Surface Width= 11.69'
Bank-Full Depth= 2.50' Flow Area= 38.8 sf, Capacity= 141.69 cfs

8.00' x 2.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 '/' Top Width= 23.00'
Length= 1,405.0' Slope= 0.0028 '/'
Inlet Invert= 494.00', Outlet Invert= 490.00'

‡

Reach 20.1R: S-KCF-6



Summary for Reach 20.2R:

[62] Hint: Exceeded Reach 20.1R OUTLET depth by 0.01' @ 25.10 hrs

Inflow Area = 98.932 ac, 0.71% Impervious, Inflow Depth = 0.25" for 1-year event
Inflow = 10.19 cfs @ 12.70 hrs, Volume= 2.082 af
Outflow = 9.34 cfs @ 12.99 hrs, Volume= 2.082 af, Atten= 8%, Lag= 17.8 min
Routed to Reach 22.2R :

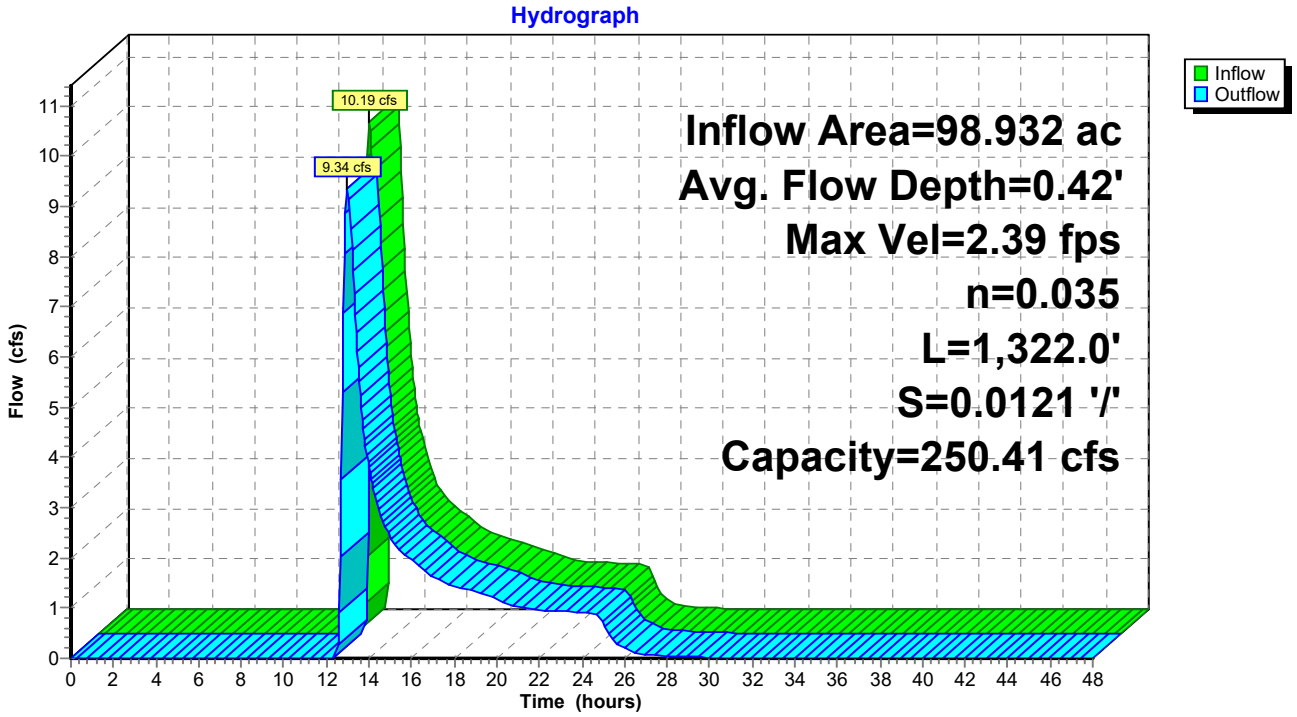
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.39 fps, Min. Travel Time= 9.2 min
Avg. Velocity = 0.81 fps, Avg. Travel Time= 27.3 min

Peak Storage= 5,167 cf @ 12.84 hrs
Average Depth at Peak Storage= 0.42' , Surface Width= 10.53'
Bank-Full Depth= 2.50' Flow Area= 38.8 sf, Capacity= 250.41 cfs

8.00' x 2.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 3.0 '/' Top Width= 23.00'
Length= 1,322.0' Slope= 0.0121 '/'
Inlet Invert= 490.00', Outlet Invert= 474.00'

‡

Reach 20.2R:


Hydrograph
Inflow
Outflow
10.19 cfs
9.34 cfs
Inflow Area=98.932 ac
Avg. Flow Depth=0.42'
Max Vel=2.39 fps
n=0.035
L=1,322.0'
S=0.0121 '/'
Capacity=250.41 cfs
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8 9 10 11
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

Summary for Reach 22.1R: S-KCF-5

Inflow Area = 123.016 ac, 3.33% Impervious, Inflow Depth = 0.23" for 1-year event
Inflow = 10.13 cfs @ 12.56 hrs, Volume= 2.356 af
Outflow = 9.94 cfs @ 12.72 hrs, Volume= 2.356 af, Atten= 2%, Lag= 9.5 min
Routed to Reach 22.2R :

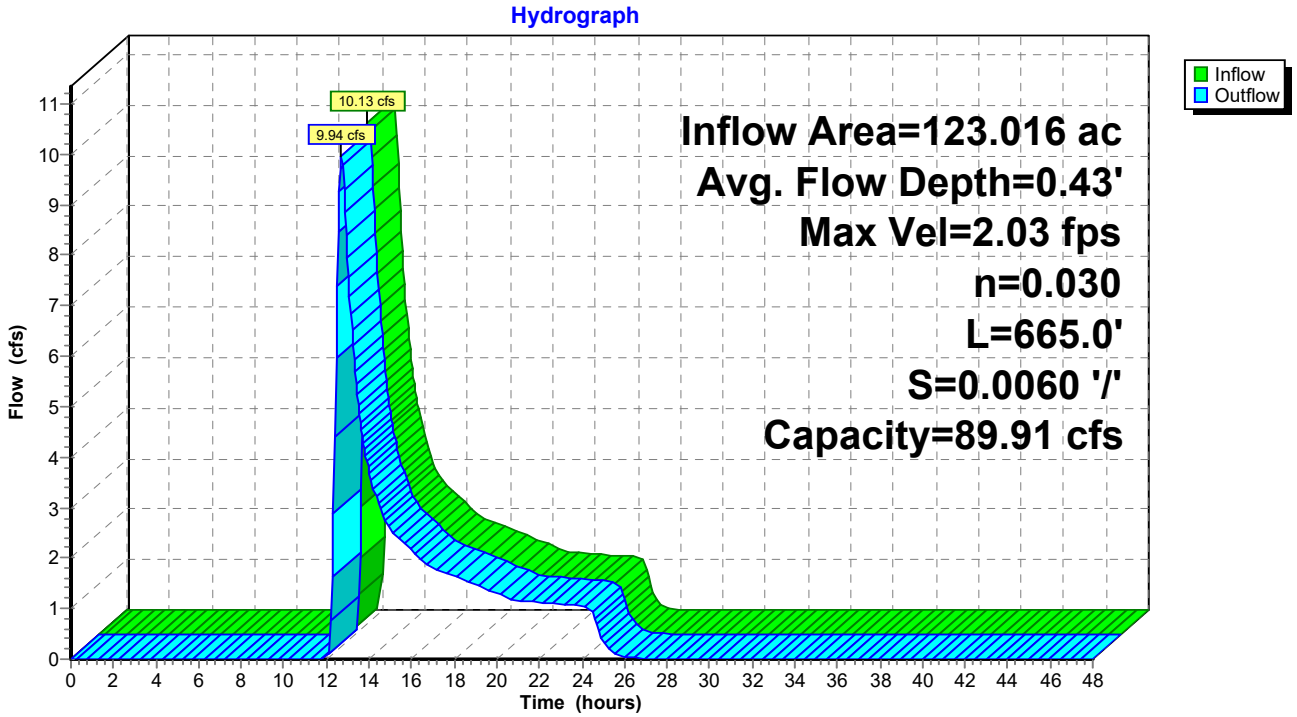
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.03 fps, Min. Travel Time= 5.5 min
Avg. Velocity = 0.81 fps, Avg. Travel Time= 13.8 min

Peak Storage= 3,258 cf @ 12.63 hrs
Average Depth at Peak Storage= 0.43' , Surface Width= 12.60'
Bank-Full Depth= 1.50' Flow Area= 21.8 sf, Capacity= 89.91 cfs

10.00' x 1.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 '/' Top Width= 19.00'
Length= 665.0' Slope= 0.0060 '/'
Inlet Invert= 478.00', Outlet Invert= 474.00'

‡

Reach 22.1R: S-KCF-5



Summary for Reach 22.2R:

[62] Hint: Exceeded Reach 20.2R OUTLET depth by 0.22' @ 13.10 hrs
[62] Hint: Exceeded Reach 22.1R OUTLET depth by 0.26' @ 13.10 hrs

Inflow Area = 221.948 ac, 2.16% Impervious, Inflow Depth = 0.24" for 1-year event
Inflow = 17.72 cfs @ 12.92 hrs, Volume= 4.438 af
Outflow = 17.45 cfs @ 13.07 hrs, Volume= 4.438 af, Atten= 2%, Lag= 8.8 min
Routed to Link SP22 :

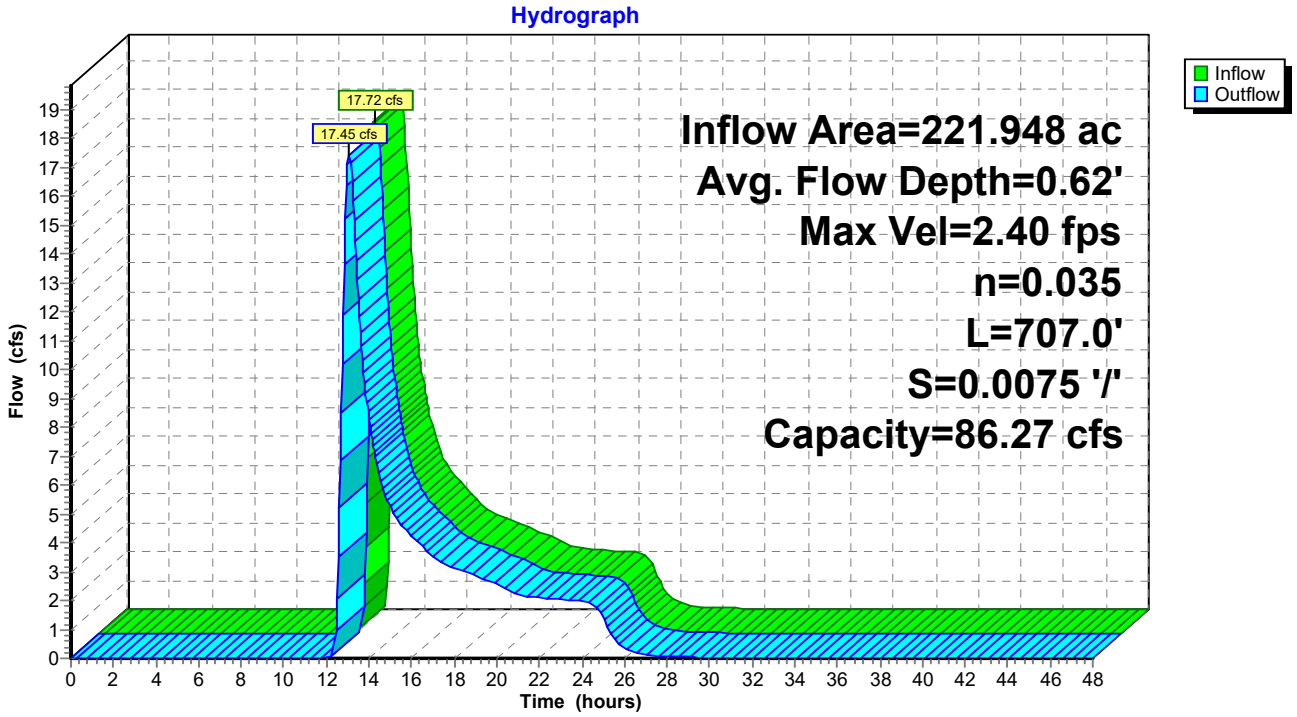
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.40 fps, Min. Travel Time= 4.9 min
Avg. Velocity = 0.73 fps, Avg. Travel Time= 16.2 min

Peak Storage= 5,152 cf @ 12.98 hrs
Average Depth at Peak Storage= 0.62' , Surface Width= 13.69'
Bank-Full Depth= 1.50' Flow Area= 21.8 sf, Capacity= 86.27 cfs

10.00' x 1.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 3.0 '/' Top Width= 19.00'
Length= 707.0' Slope= 0.0075 '/'
Inlet Invert= 474.00', Outlet Invert= 468.67'

‡

Reach 22.2R:


Hydrograph
Inflow
Outflow
17.72 cfs
17.45 cfs
Inflow Area=221.948 ac
Avg. Flow Depth=0.62'
Max Vel=2.40 fps
n=0.035
L=707.0'
S=0.0075 '/'
Capacity=86.27 cfs
Flow (cfs)
Time (hours)

Summary for Reach 44R:

Inflow Area = 34.065 ac, 0.27% Impervious, Inflow Depth = 0.34" for 1-year event
Inflow = 5.47 cfs @ 12.47 hrs, Volume= 0.956 af
Outflow = 5.43 cfs @ 12.56 hrs, Volume= 0.956 af, Atten= 1%, Lag= 5.1 min
Routed to Reach 45R :

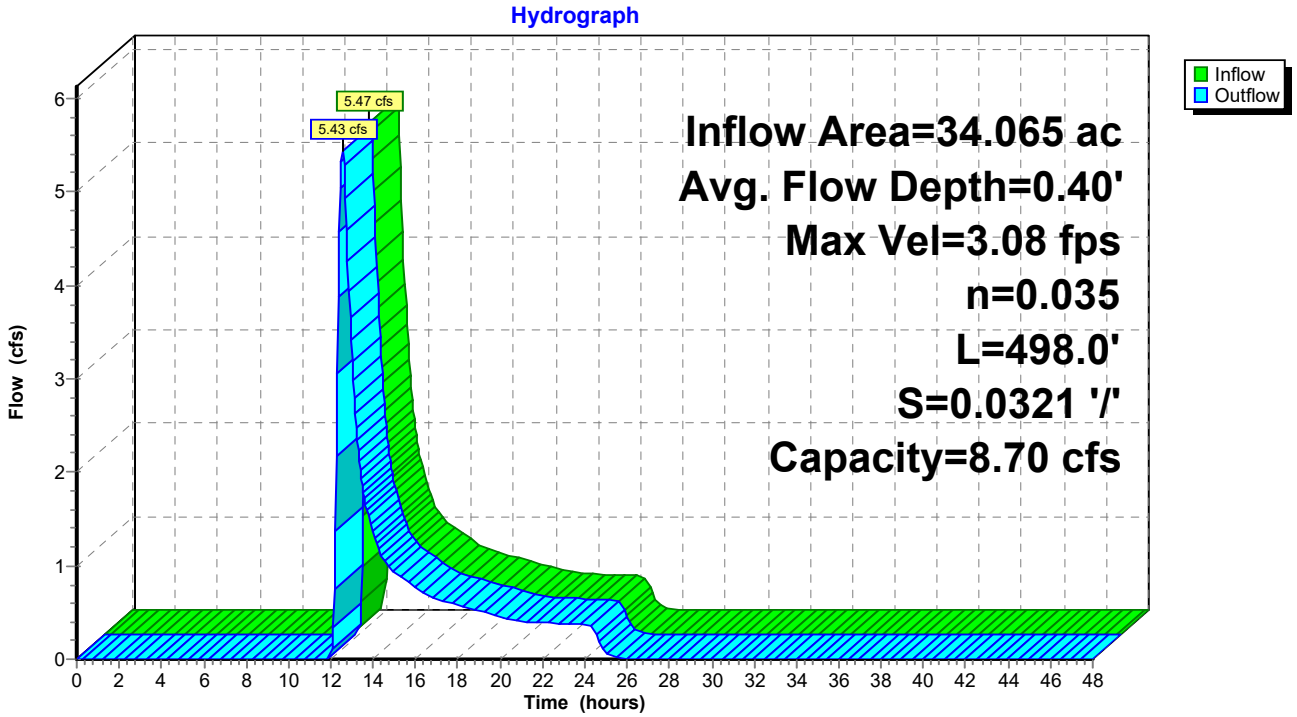
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.08 fps, Min. Travel Time= 2.7 min
Avg. Velocity = 1.36 fps, Avg. Travel Time= 6.1 min

Peak Storage= 880 cf @ 12.51 hrs
Average Depth at Peak Storage= 0.40' , Surface Width= 6.81'
Bank-Full Depth= 0.50' Flow Area= 2.5 sf, Capacity= 8.70 cfs

2.00' x 0.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 8.00'
Length= 498.0' Slope= 0.0321 '/'
Inlet Invert= 404.00', Outlet Invert= 388.00'

‡

Reach 44R:



Summary for Reach 45R:

[61] Hint: Exceeded Reach 44R outlet invert by 0.39' @ 12.55 hrs

Inflow Area = 73.929 ac, 0.12% Impervious, Inflow Depth = 0.32" for 1-year event
Inflow = 10.84 cfs @ 12.53 hrs, Volume= 1.979 af
Outflow = 10.78 cfs @ 12.60 hrs, Volume= 1.979 af, Atten= 1%, Lag= 3.8 min
Routed to Link SP43 :

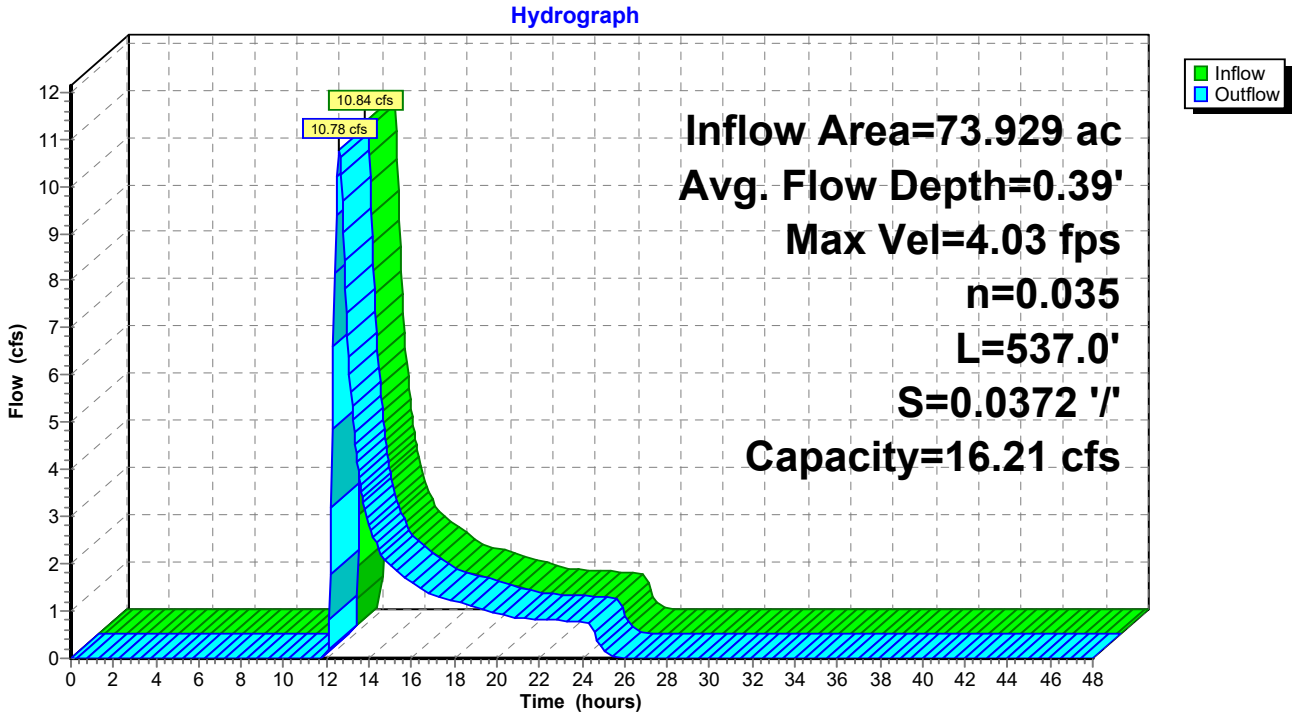
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.03 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 1.44 fps, Avg. Travel Time= 6.2 min

Peak Storage= 1,439 cf @ 12.56 hrs
Average Depth at Peak Storage= 0.39' , Surface Width= 7.58'
Bank-Full Depth= 0.50' Flow Area= 3.5 sf, Capacity= 16.21 cfs

6.00' x 0.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 '/' Top Width= 8.00'
Length= 537.0' Slope= 0.0372 '/'
Inlet Invert= 388.00', Outlet Invert= 368.00'

‡

Reach 45R:


Hydrograph
Inflow
Outflow
10.84 cfs
10.78 cfs
Inflow Area=73.929 ac
Avg. Flow Depth=0.39'
Max Vel=4.03 fps
n=0.035
L=537.0'
S=0.0372 '/'
Capacity=16.21 cfs
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8 9 10 11 12
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

Summary for Pond 4.1P: 4.1P

[92] Warning: Device #4 is above defined storage

Inflow Area = 15.089 ac, 0.00% Impervious, Inflow Depth = 0.25" for 1-year event
Inflow = 4.79 cfs @ 12.00 hrs, Volume= 0.320 af
Outflow = 0.01 cfs @ 24.17 hrs, Volume= 0.018 af, Atten= 100%, Lag= 729.8 min
Primary = 0.01 cfs @ 24.17 hrs, Volume= 0.018 af
Routed to Link SP4 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP4 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 492.07' @ 24.17 hrs Surf.Area= 24,683 sf Storage= 13,868 cf

Plug-Flow detention time= 1,291.2 min calculated for 0.018 af (6% of inflow)
Center-of-Mass det. time= 1,083.1 min (2,008.5 - 925.4)

Volume	Invert	Avail.Storage	Storage Description
#1	491.50'	106,981 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

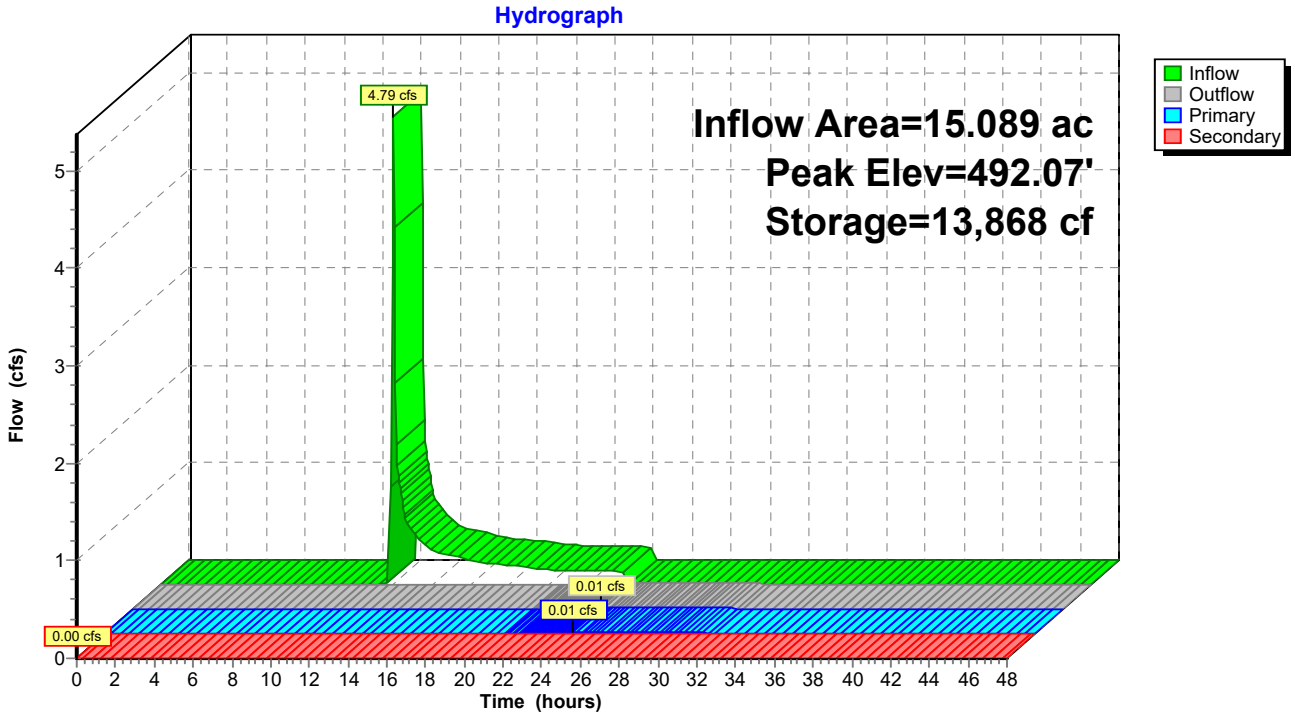
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
491.50	23,879	0	0
492.00	24,582	12,115	12,115
493.00	26,006	25,294	37,409
494.00	27,454	26,730	64,139
495.00	28,928	28,191	92,330
495.50	29,674	14,651	106,981

Device	Routing	Invert	Outlet Devices
#1	Primary	491.50'	**12.0" Round Culvert** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 491.50' / 491.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	494.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	492.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.50'	**6.0' long + 2.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.01 cfs @ 24.17 hrs HW=492.07' (Free Discharge)
└**1=Culvert** (Passes 0.01 cfs of 0.94 cfs potential flow)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Orifice Controls 0.01 cfs @ 0.91 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.50' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 4.1P: 4.1P


Hydrograph
Inflow
Outflow
Primary
Secondary
Inflow Area=15.089 ac
Peak Elev=492.07'
Storage=13,868 cf
4.79 cfs
0.01 cfs
0.01 cfs
0.00 cfs
Flow (cfs)
Time (hours)
0
1
2
3
4
5
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

Summary for Pond 7.1P:

Inflow Area = 4.575 ac, 0.00% Impervious, Inflow Depth = 0.08" for 1-year event
Inflow = 0.05 cfs @ 12.55 hrs, Volume= 0.030 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP7 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP7 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 512.20' @ 24.90 hrs Surf.Area= 6,706 sf Storage= 1,308 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	512.00'	37,773 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

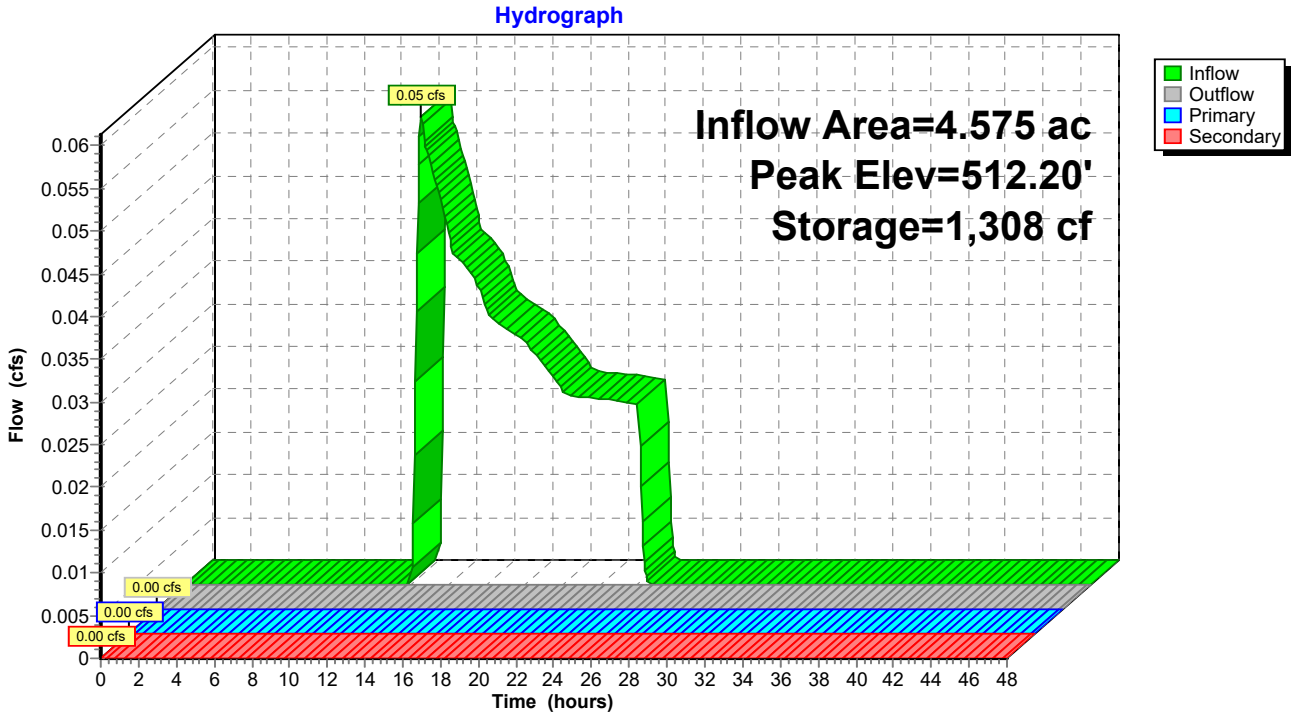
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
512.00	6,414	0	0
513.00	7,879	7,147	7,147
514.00	9,401	8,640	15,787
515.00	10,979	10,190	25,977
516.00	12,614	11,797	37,773

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 512.00' / 510.00' S= 0.0606 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	515.00'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	512.25'	**4.0" Vert. Orifice/Grate X 0.00** C= 0.600 Limited to weir flow at low heads
#4	Secondary	515.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7.1P:


Hydrograph
Inflow Area=4.575 ac
Peak Elev=512.20'
Storage=1,308 cf
0.05 cfs
0.00 cfs
0.00 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
0
0.005
0.01
0.015
0.02
0.025
0.03
0.035
0.04
0.045
0.05
0.055
0.06
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Pond 9.1P: 9.1P

Inflow Area = 8.972 ac, 0.00% Impervious, Inflow Depth = 0.40" for 1-year event
Inflow = 2.12 cfs @ 12.36 hrs, Volume= 0.298 af
Outflow = 0.10 cfs @ 24.18 hrs, Volume= 0.088 af, Atten= 95%, Lag= 709.4 min
Primary = 0.10 cfs @ 24.18 hrs, Volume= 0.088 af
Routed to Link SP9 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP9 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 467.22' @ 24.18 hrs Surf.Area= 9,470 sf Storage= 10,910 cf

Plug-Flow detention time= 787.6 min calculated for 0.088 af (30% of inflow)
Center-of-Mass det. time= 609.6 min (1,530.0 - 920.4)

Volume	Invert	Avail.Storage	Storage Description
#1	466.00'	40,833 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

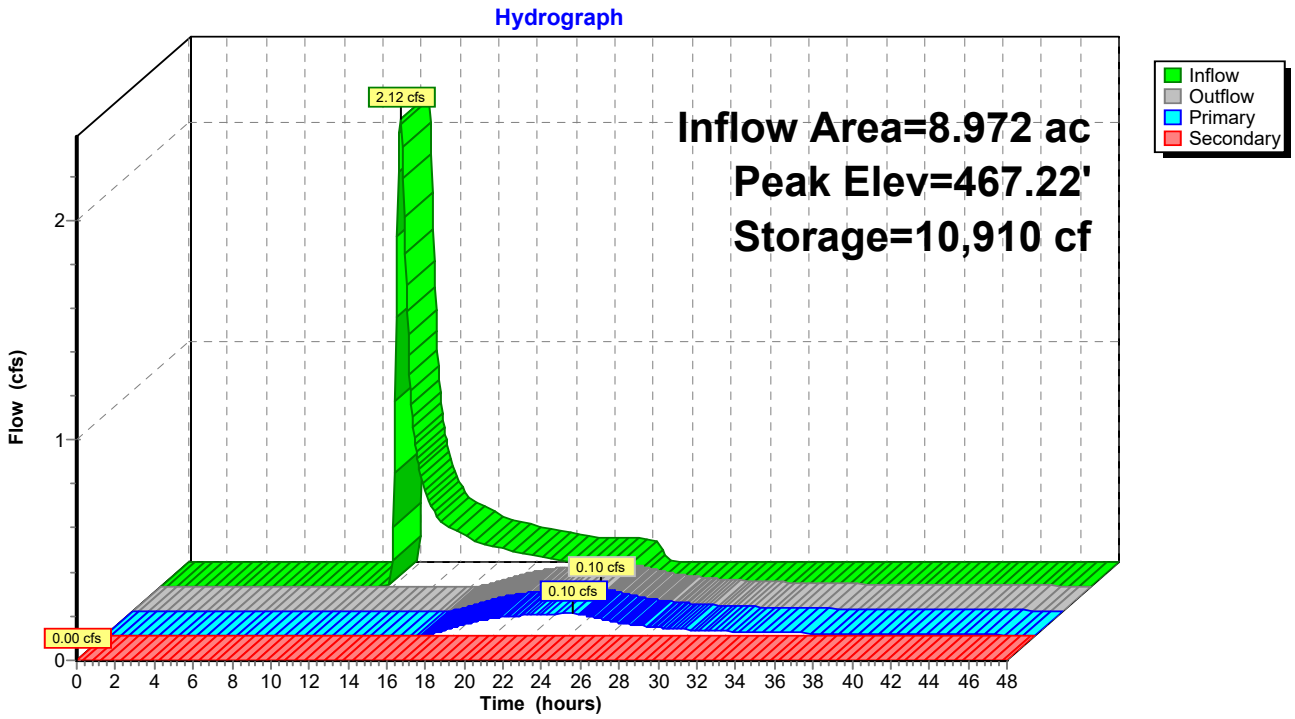
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
466.00	8,356	0	0
467.00	9,263	8,810	8,810
468.00	10,188	9,726	18,535
469.00	11,142	10,665	29,200
470.00	12,124	11,633	40,833

Device	Routing	Invert	Outlet Devices
#1	Primary	466.00'	**12.0" Round Culvert** L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 466.00' / 462.00' S= 0.1333 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	469.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	467.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	469.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.10 cfs @ 24.18 hrs HW=467.22' (Free Discharge)
└**1=Culvert** (Passes 0.10 cfs of 2.54 cfs potential flow)
├**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Orifice Controls 0.10 cfs @ 1.61 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=466.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9.1P: 9.1P


Hydrograph
Inflow Area=8.972 ac
Peak Elev=467.22'
Storage=10,910 cf
Inflow
Outflow
Primary
Secondary
2.12 cfs
0.10 cfs
0.10 cfs
0.00 cfs
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
0 1 2

Summary for Pond 10.1P: 10.1P

Inflow Area = 2.860 ac, 0.00% Impervious, Inflow Depth = 0.34" for 1-year event
Inflow = 0.79 cfs @ 12.16 hrs, Volume= 0.080 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP10 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP10 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 568.63' @ 25.10 hrs Surf.Area= 5,959 sf Storage= 3,495 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	568.00'	30,342 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

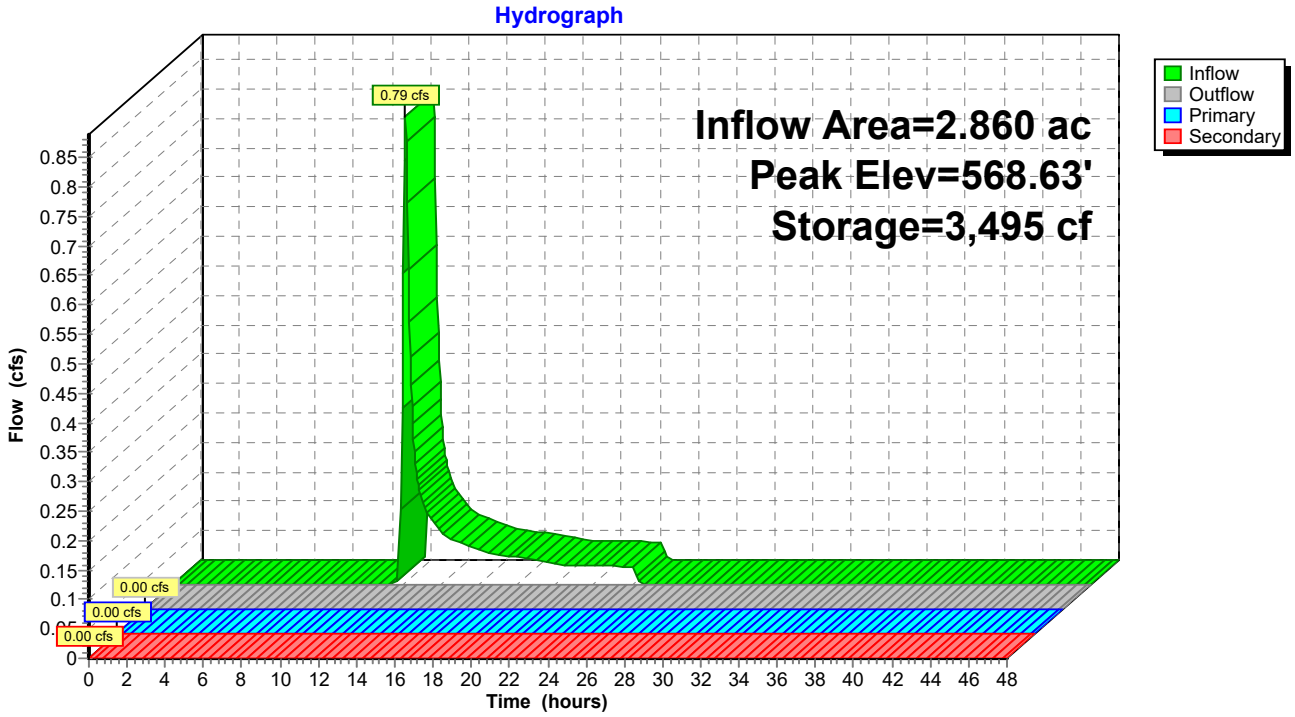
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
568.00	5,183	0	0
569.00	6,419	5,801	5,801
570.00	7,717	7,068	12,869
571.00	9,076	8,397	21,266
572.00	9,077	9,077	30,342

Device	Routing	Invert	Outlet Devices
#1	Primary	568.00'	**12.0" Round Culvert** L= 80.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 568.00' / 567.50' S= 0.0063 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	569.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	571.00'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=568.00' (Free Discharge)
↑—**1=Culvert** (Controls 0.00 cfs)
↑—**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=568.00' (Free Discharge)
↑—**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10.1P: 10.1P



Summary for Pond 12P: 12P

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 4.859 ac, 53.67% Impervious, Inflow Depth = 1.84" for 1-year event
Inflow = 13.94 cfs @ 11.96 hrs, Volume= 0.744 af
Outflow = 1.40 cfs @ 12.38 hrs, Volume= 0.745 af, Atten= 90%, Lag= 25.0 min
Primary = 1.40 cfs @ 12.38 hrs, Volume= 0.745 af
Routed to Reach 13.1R :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 507.46' @ 12.38 hrs Surf.Area= 22,160 sf Storage= 11,723 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 55.9 min (829.1 - 773.2)

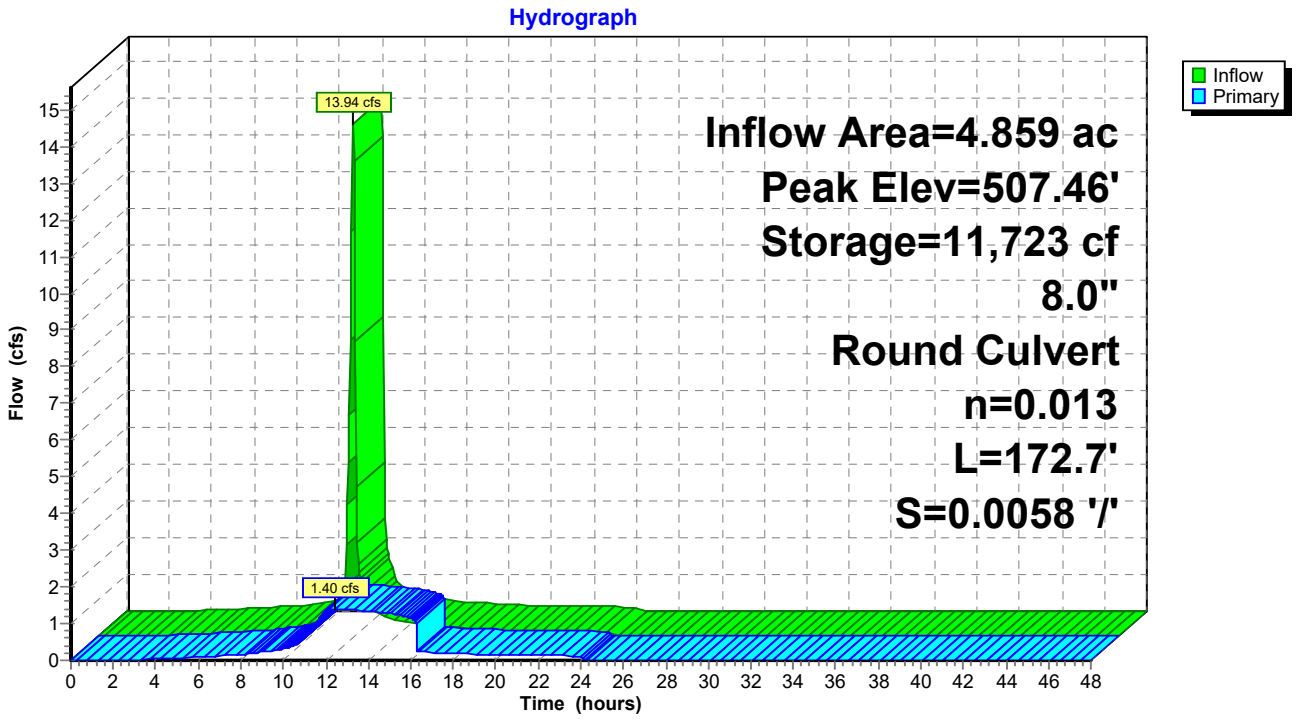
Volume	Invert	Avail.Storage	Storage Description
#1	506.00'	349,842 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
506.00	138	45.5	0	0	138
508.00	39,705	811.5	28,123	28,123	52,385
510.00	80,589	1,415.9	117,907	146,030	159,538
512.00	124,830	2,053.3	203,812	349,842	335,540

Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	**8.0" Round Culvert**
			L= 172.7' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 505.00' / 504.00' S= 0.0058 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.40 cfs @ 12.38 hrs HW=507.46' (Free Discharge)
↑**1=Culvert** (Barrel Controls 1.40 cfs @ 4.01 fps)

Pond 12P: 12P


Hydrograph
Inflow
Primary
13.94 cfs
1.40 cfs
Inflow Area=4.859 ac
Peak Elev=507.46'
Storage=11,723 cf
8.0"
Round Culvert
n=0.013
L=172.7'
S=0.0058 '/'
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

Summary for Pond 23.1P: 23.1P

Inflow Area = 3.682 ac, 0.00% Impervious, Inflow Depth = 0.31" for 1-year event
Inflow = 1.59 cfs @ 12.00 hrs, Volume= 0.094 af
Outflow = 0.01 cfs @ 24.11 hrs, Volume= 0.007 af, Atten= 99%, Lag= 726.4 min
Primary = 0.01 cfs @ 24.11 hrs, Volume= 0.007 af
Routed to Link SP23 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP23 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 493.06' @ 24.11 hrs Surf.Area= 4,105 sf Storage= 4,062 cf

Plug-Flow detention time= 1,026.4 min calculated for 0.007 af (7% of inflow)
Center-of-Mass det. time= 831.6 min (1,743.4 - 911.8)

Volume	Invert	Avail.Storage	Storage Description
#1	492.00'	24,768 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

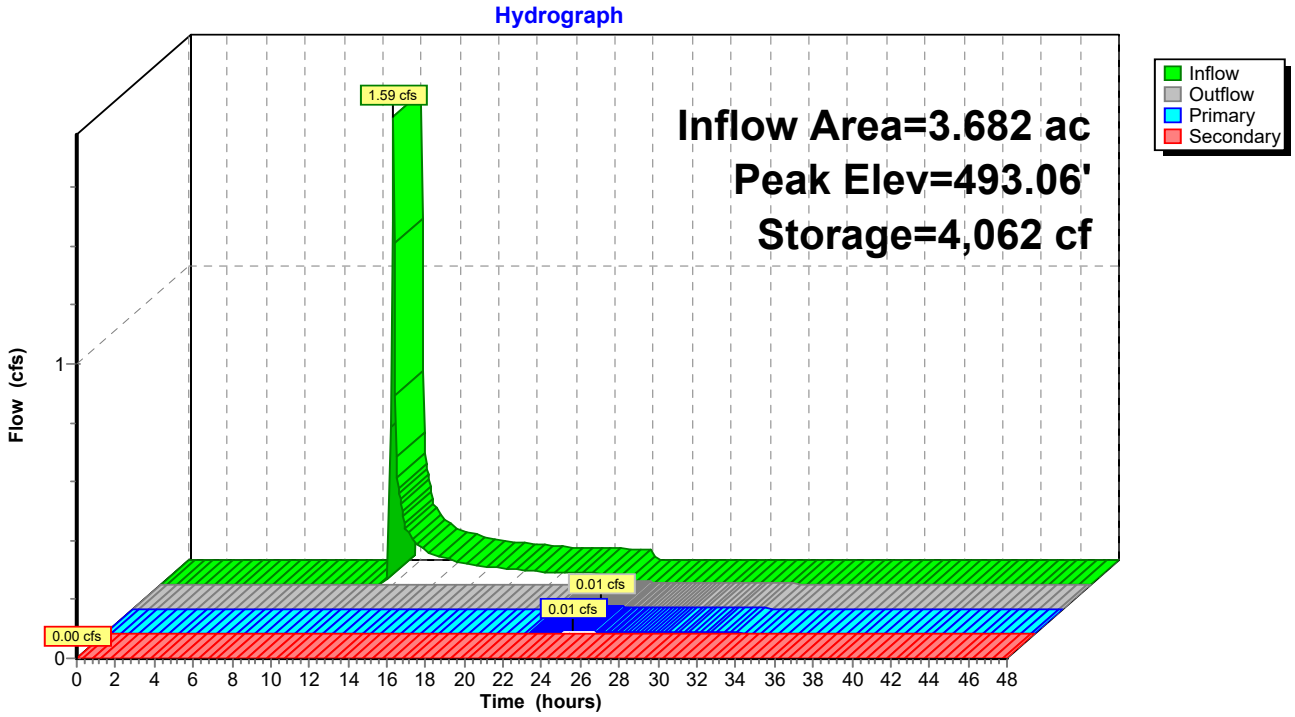
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
492.00	3,530	0	0
493.00	4,069	3,800	3,800
494.00	4,634	4,352	8,151
495.00	5,223	4,929	13,080
496.00	5,838	5,531	18,610
497.00	6,477	6,158	24,768

Device	Routing	Invert	Outlet Devices
#1	Primary	492.00'	**24.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 492.00' / 489.00' S= 0.1071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	493.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	494.00'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	496.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.01 cfs @ 24.11 hrs HW=493.06' (Free Discharge)
└**1=Culvert** (Passes 0.01 cfs of 4.71 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.01 cfs @ 0.86 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=492.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 23.1P: 23.1P



Summary for Pond 44.1P: 44.1P

Inflow Area = 6.425 ac, 0.00% Impervious, Inflow Depth = 0.58" for 1-year event
Inflow = 6.32 cfs @ 11.98 hrs, Volume= 0.312 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP43 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP43 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 426.67' @ 24.40 hrs Surf.Area= 20,760 sf Storage= 13,588 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	426.00'	90,704 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

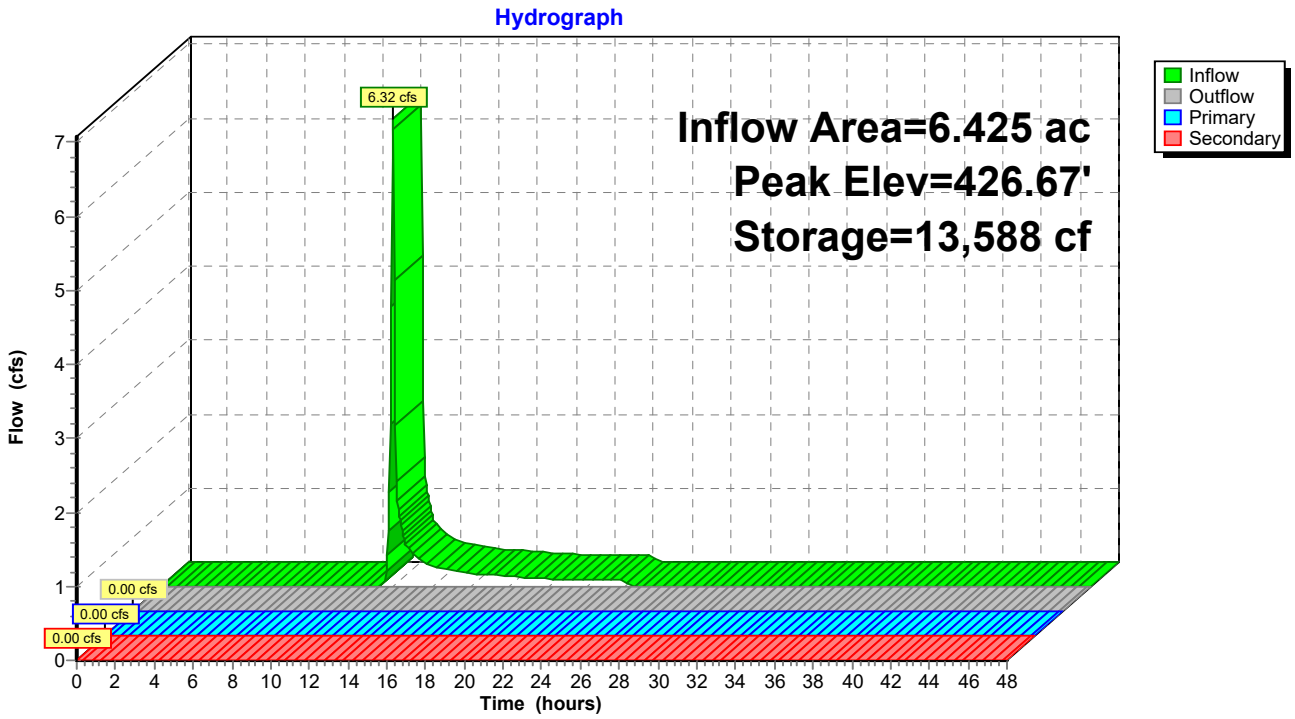
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
426.00	19,818	0	0
427.00	21,225	20,522	20,522
428.00	22,657	21,941	42,463
429.00	24,114	23,386	65,848
430.00	25,597	24,856	90,704

Device	Routing	Invert	Outlet Devices
#1	Primary	426.00'	**12.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 426.00' / 425.50' S= 0.0227 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	427.25'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	428.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	428.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=426.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=426.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 44.1P: 44.1P



Summary for Pond 46.1P: 46.1P

Inflow Area = 5.472 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-year event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP46 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP46 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 354.00' @ 0.00 hrs Surf.Area= 6,512 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	354.00'	27,705 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

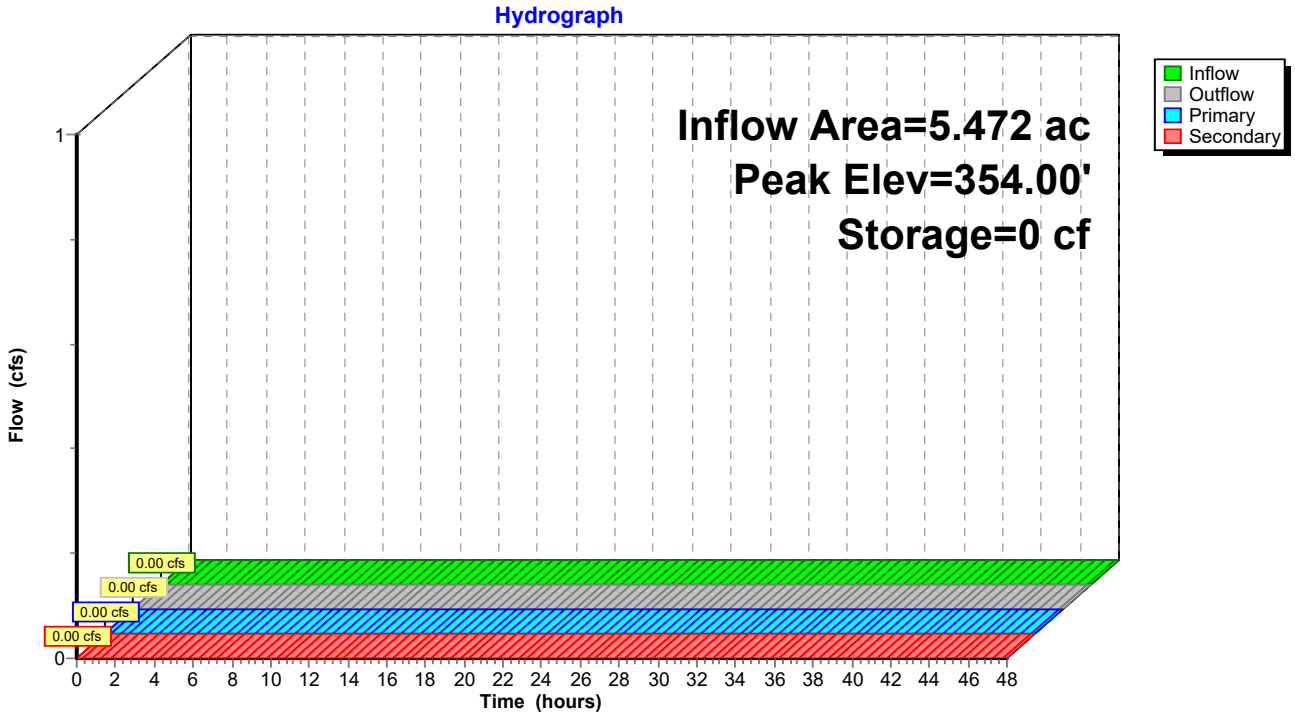
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
354.00	6,512	0	0
355.00	8,313	7,413	7,413
356.00	10,140	9,227	16,639
357.00	11,992	11,066	27,705

Device	Routing	Invert	Outlet Devices
#1	Primary	354.00'	**24.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 354.00' / 353.75' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	354.83'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	355.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	355.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=354.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=354.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 46.1P: 46.1P

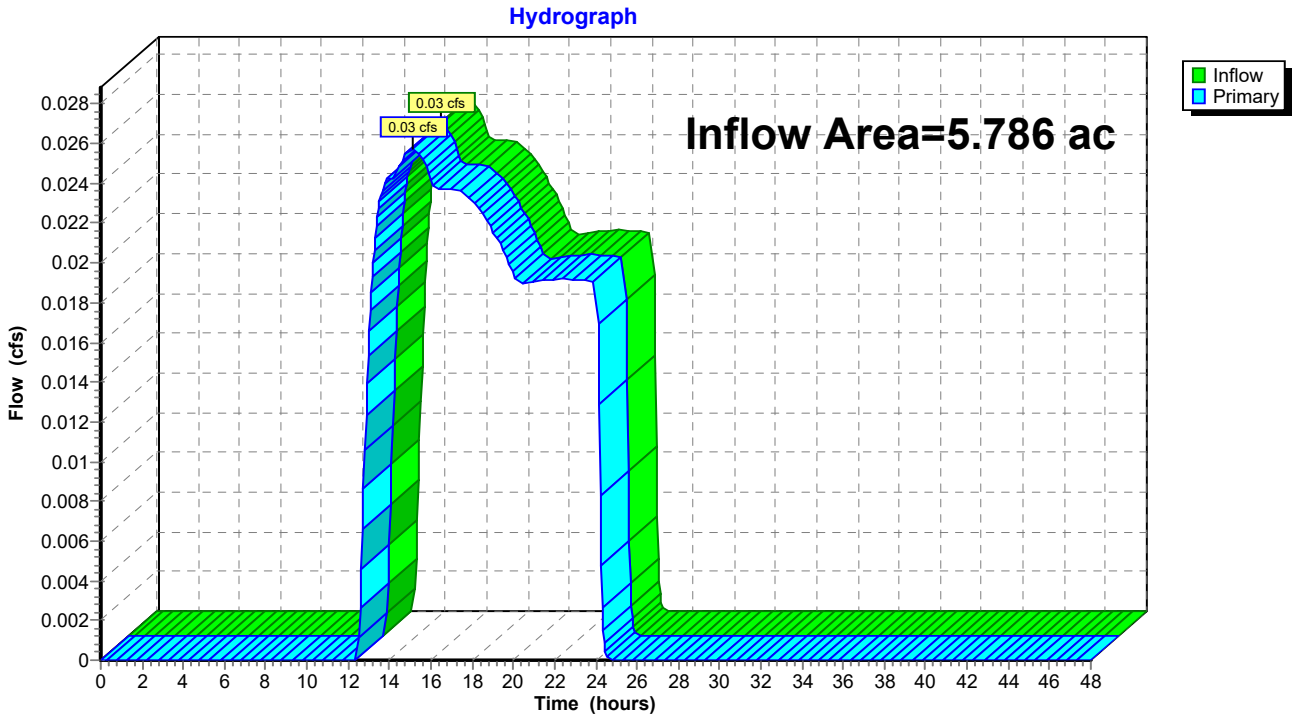


Summary for Link SP1:

Inflow Area = 5.786 ac, 0.00% Impervious, Inflow Depth = 0.04" for 1-year event
Inflow = 0.03 cfs @ 15.11 hrs, Volume= 0.020 af
Primary = 0.03 cfs @ 15.11 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP1:

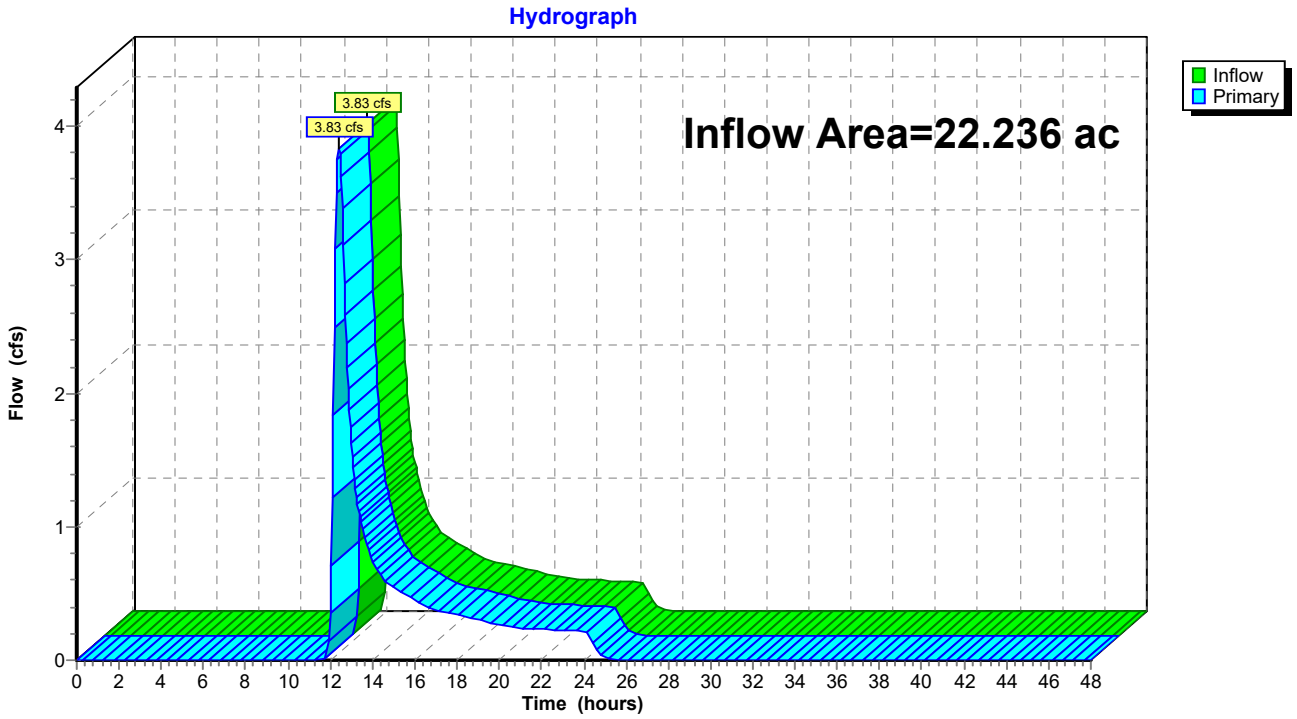


Summary for Link SP10:

Inflow Area = 22.236 ac, 4.90% Impervious, Inflow Depth = 0.32" for 1-year event
Inflow = 3.83 cfs @ 12.41 hrs, Volume= 0.593 af
Primary = 3.83 cfs @ 12.41 hrs, Volume= 0.593 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP10:

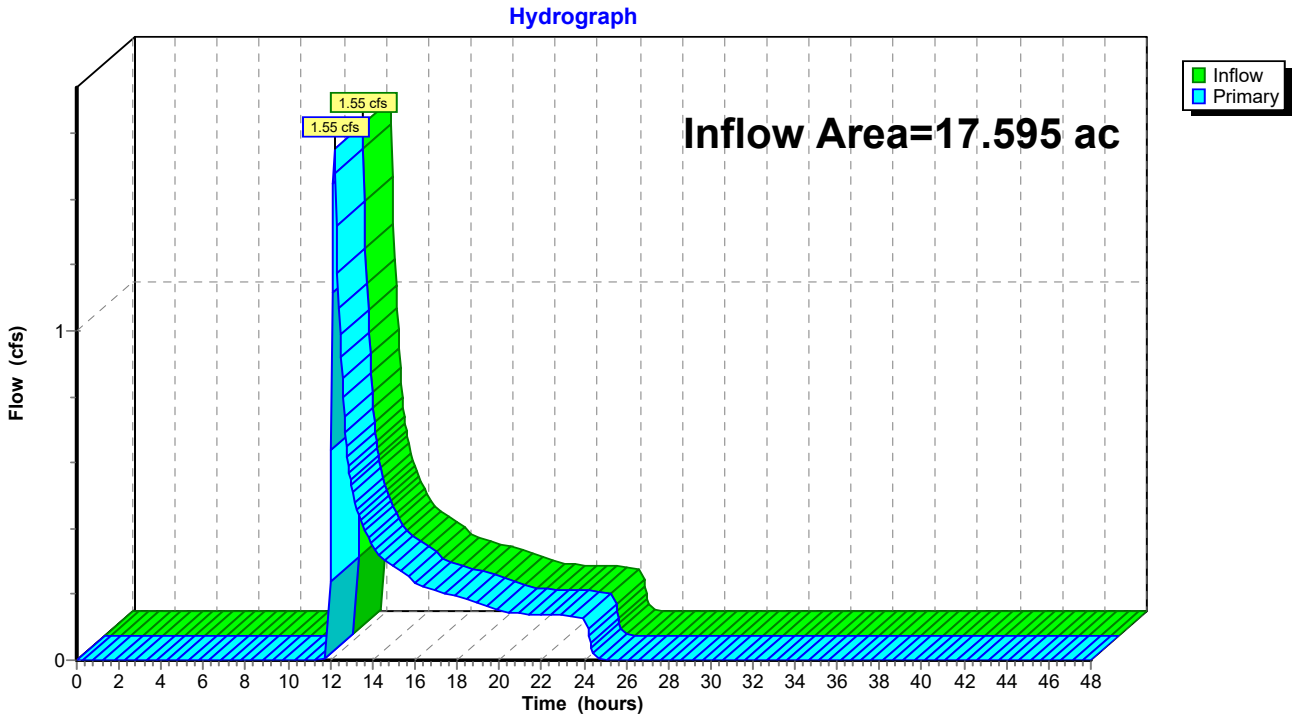


Summary for Link SP11:

Inflow Area = 17.595 ac, 2.63% Impervious, Inflow Depth = 0.18" for 1-year event
Inflow = 1.55 cfs @ 12.20 hrs, Volume= 0.270 af
Primary = 1.55 cfs @ 12.20 hrs, Volume= 0.270 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP11:

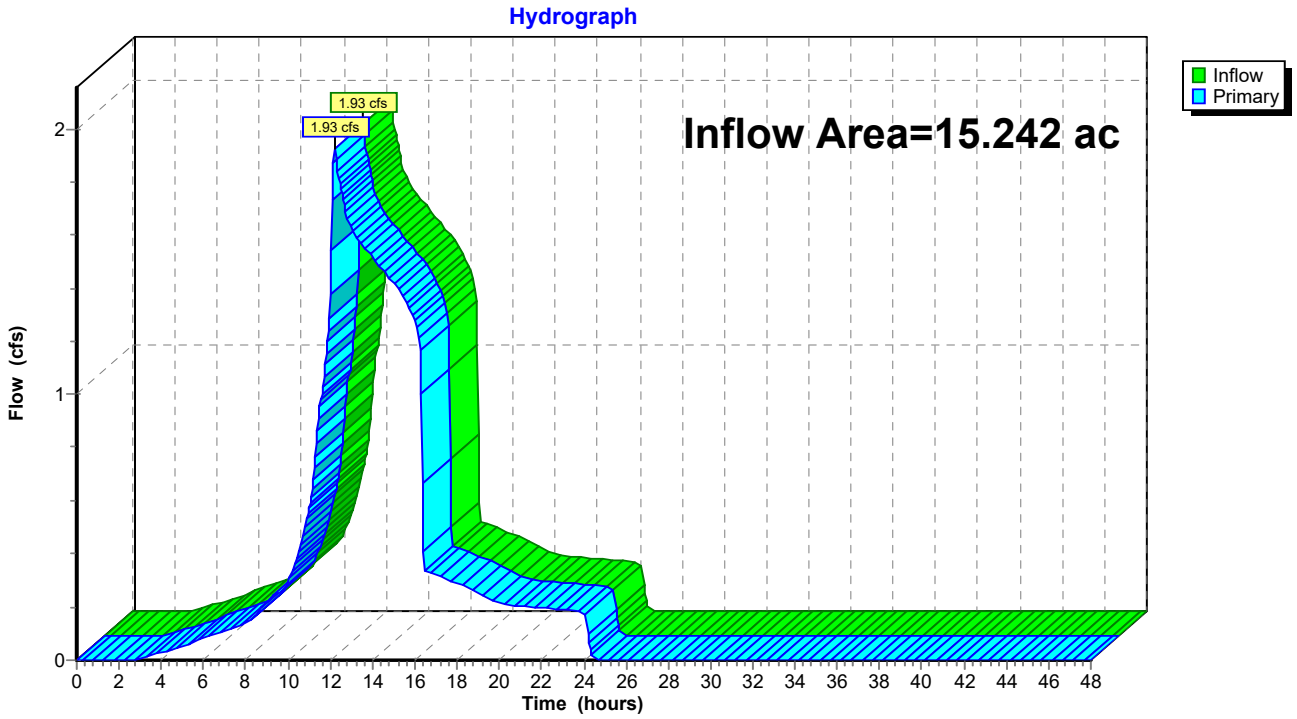


Summary for Link SP13:

Inflow Area = 15.242 ac, 17.24% Impervious, Inflow Depth = 0.69" for 1-year event
Inflow = 1.93 cfs @ 12.21 hrs, Volume= 0.870 af
Primary = 1.93 cfs @ 12.21 hrs, Volume= 0.870 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP13:

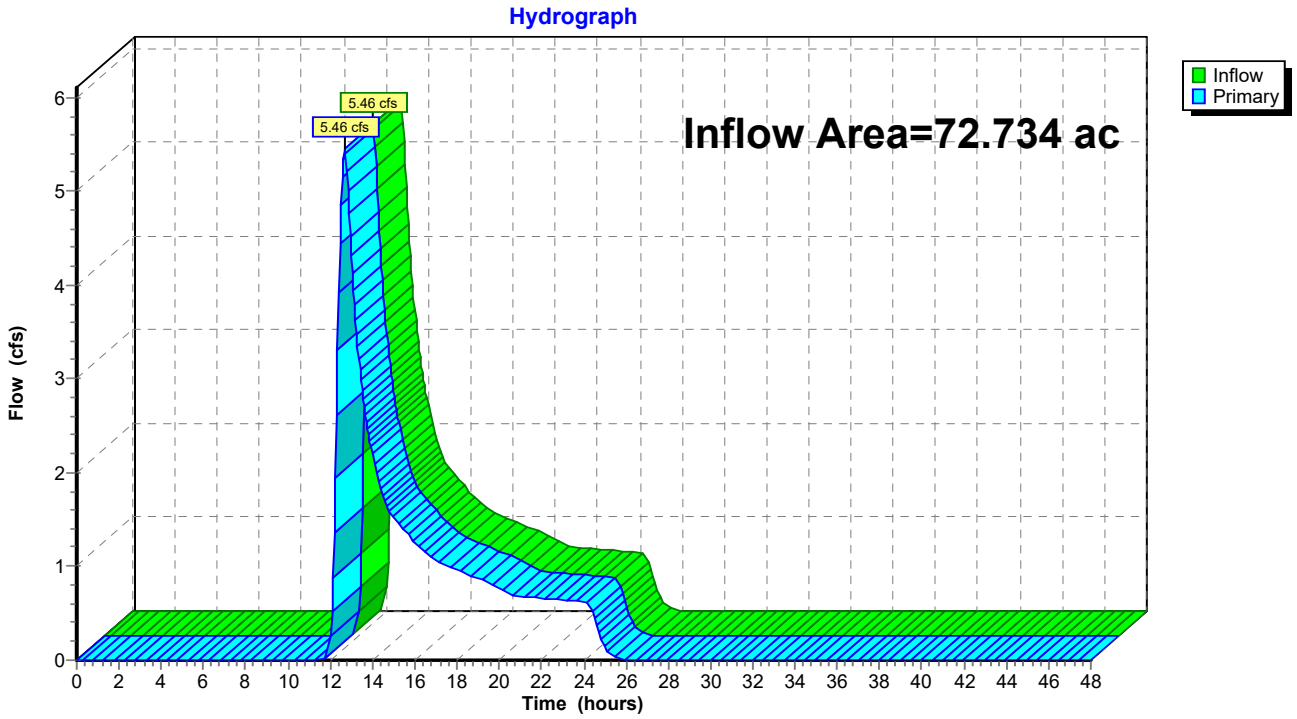


Summary for Link SP14:

Inflow Area = 72.734 ac, 0.42% Impervious, Inflow Depth = 0.23" for 1-year event
Inflow = 5.46 cfs @ 12.67 hrs, Volume= 1.393 af
Primary = 5.46 cfs @ 12.67 hrs, Volume= 1.393 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP14:

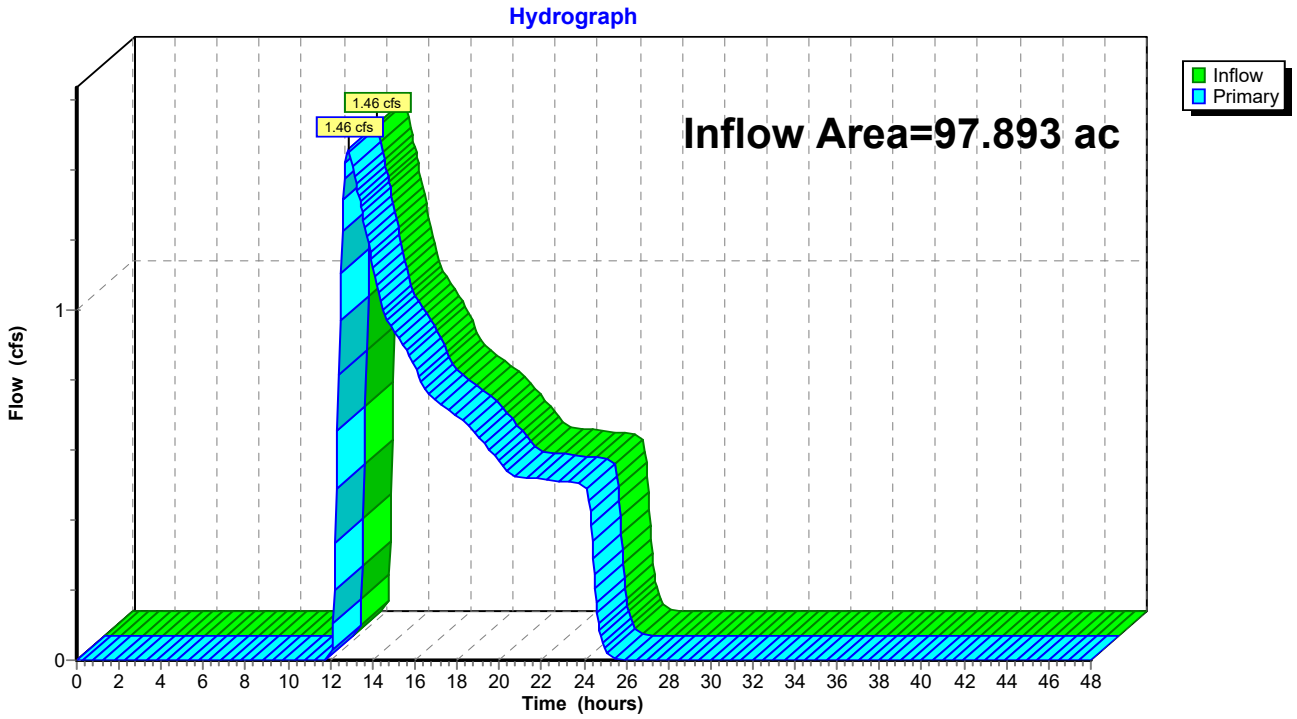


Summary for Link SP17:

Inflow Area = 97.893 ac, 1.18% Impervious, Inflow Depth = 0.09" for 1-year event
Inflow = 1.46 cfs @ 12.84 hrs, Volume= 0.761 af
Primary = 1.46 cfs @ 12.84 hrs, Volume= 0.761 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP17:

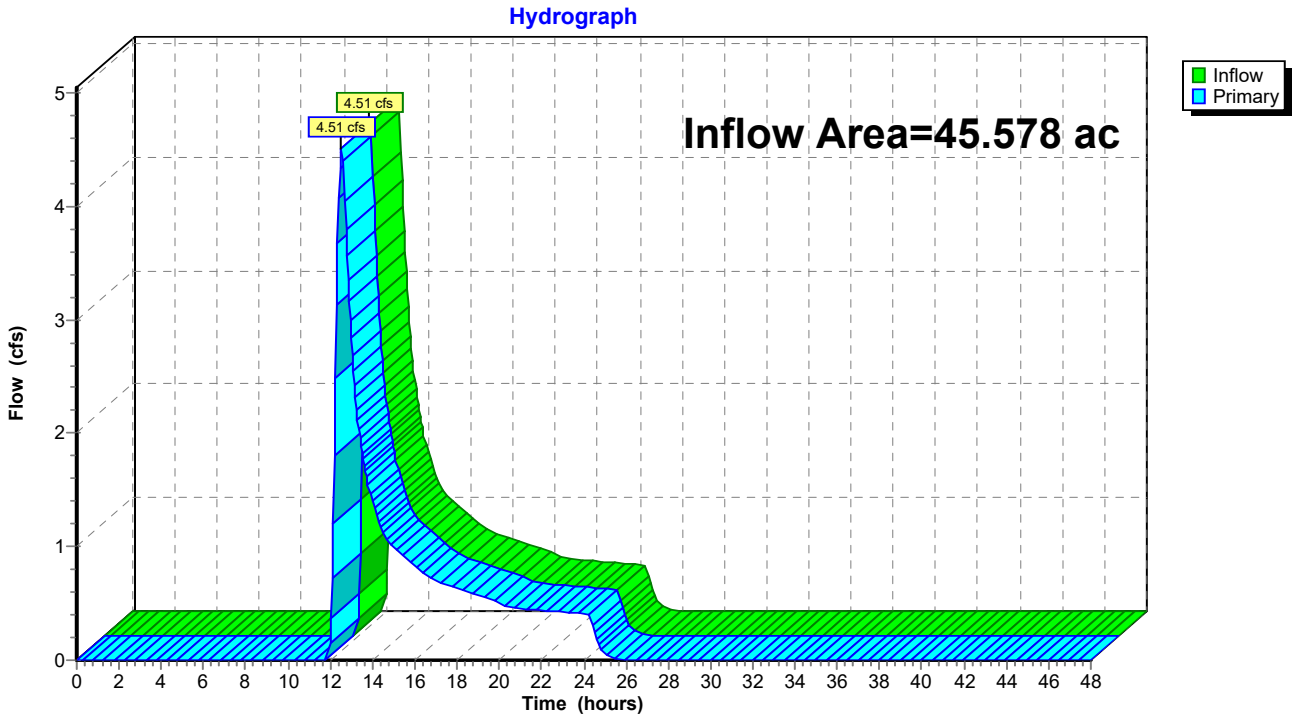


Summary for Link SP18:

Inflow Area = 45.578 ac, 0.74% Impervious, Inflow Depth = 0.25" for 1-year event
Inflow = 4.51 cfs @ 12.54 hrs, Volume= 0.966 af
Primary = 4.51 cfs @ 12.54 hrs, Volume= 0.966 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP18:

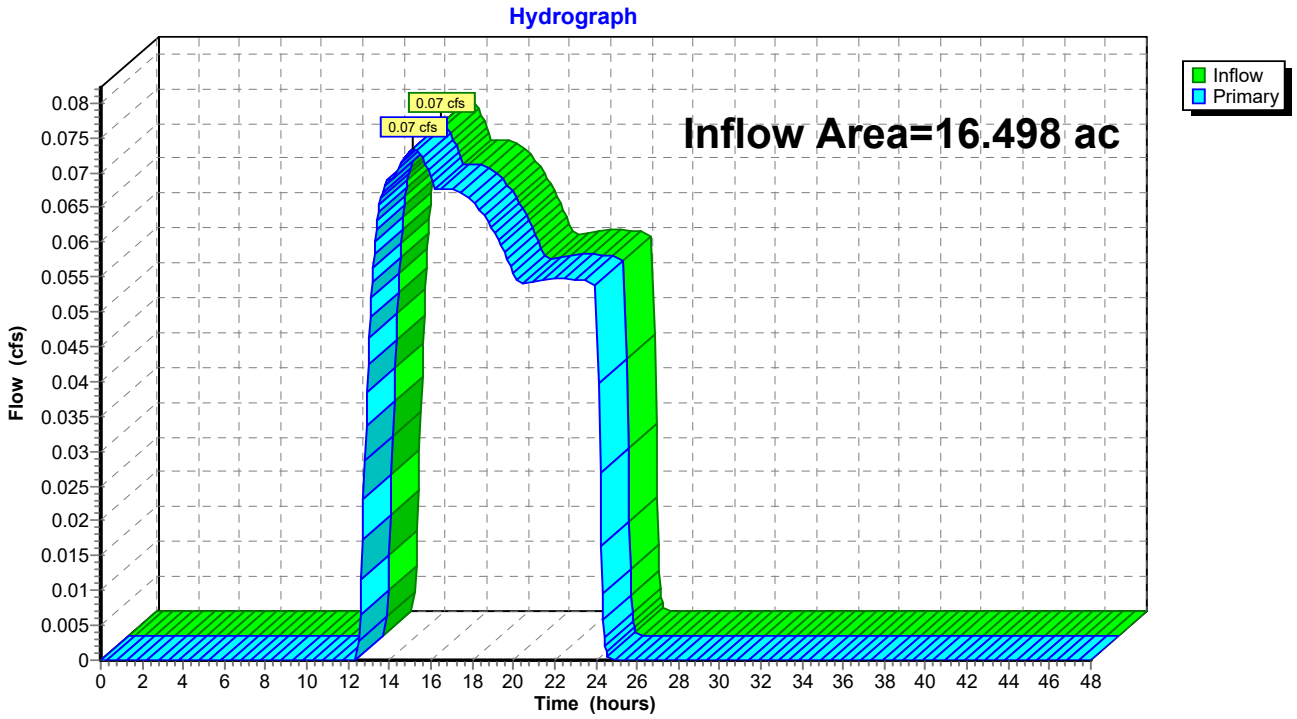


Summary for Link SP2:

Inflow Area = 16.498 ac, 0.00% Impervious, Inflow Depth = 0.04" for 1-year event
Inflow = 0.07 cfs @ 15.12 hrs, Volume= 0.058 af
Primary = 0.07 cfs @ 15.12 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP2:

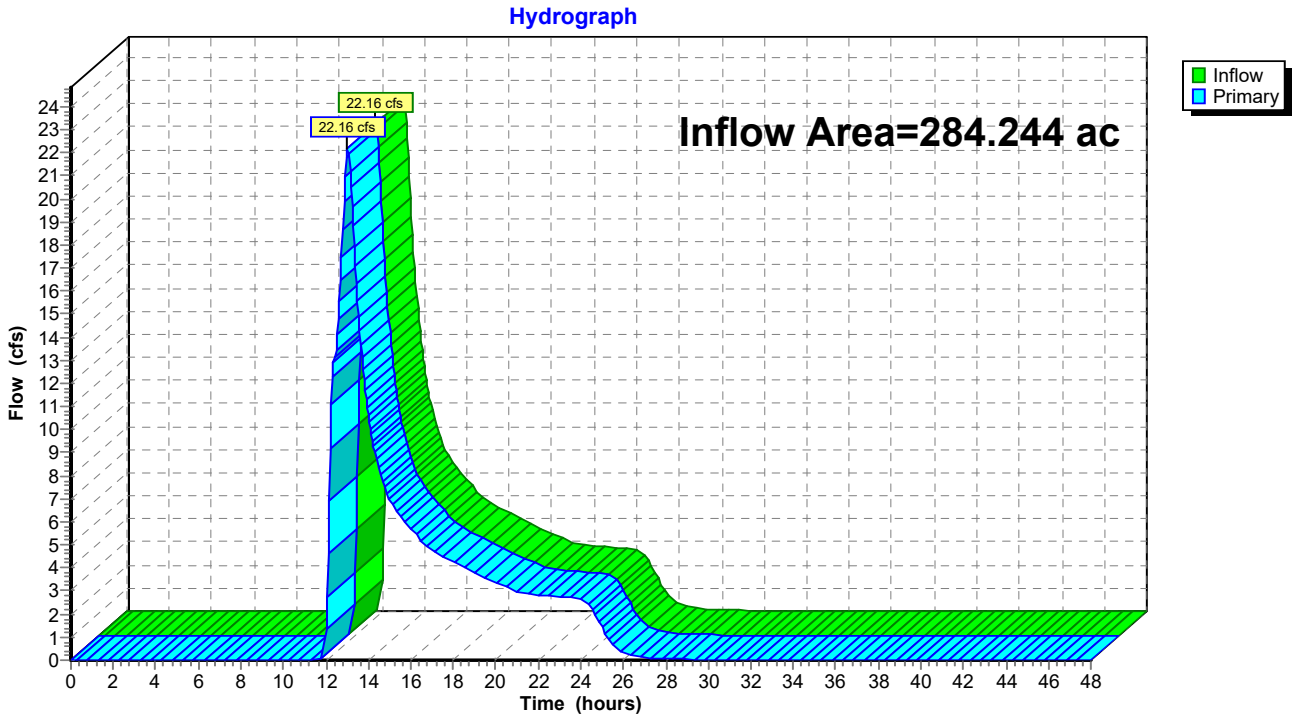


Summary for Link SP22:

Inflow Area = 284.244 ac, 1.82% Impervious, Inflow Depth = 0.27" for 1-year event
Inflow = 22.16 cfs @ 13.02 hrs, Volume= 6.343 af
Primary = 22.16 cfs @ 13.02 hrs, Volume= 6.343 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP22:

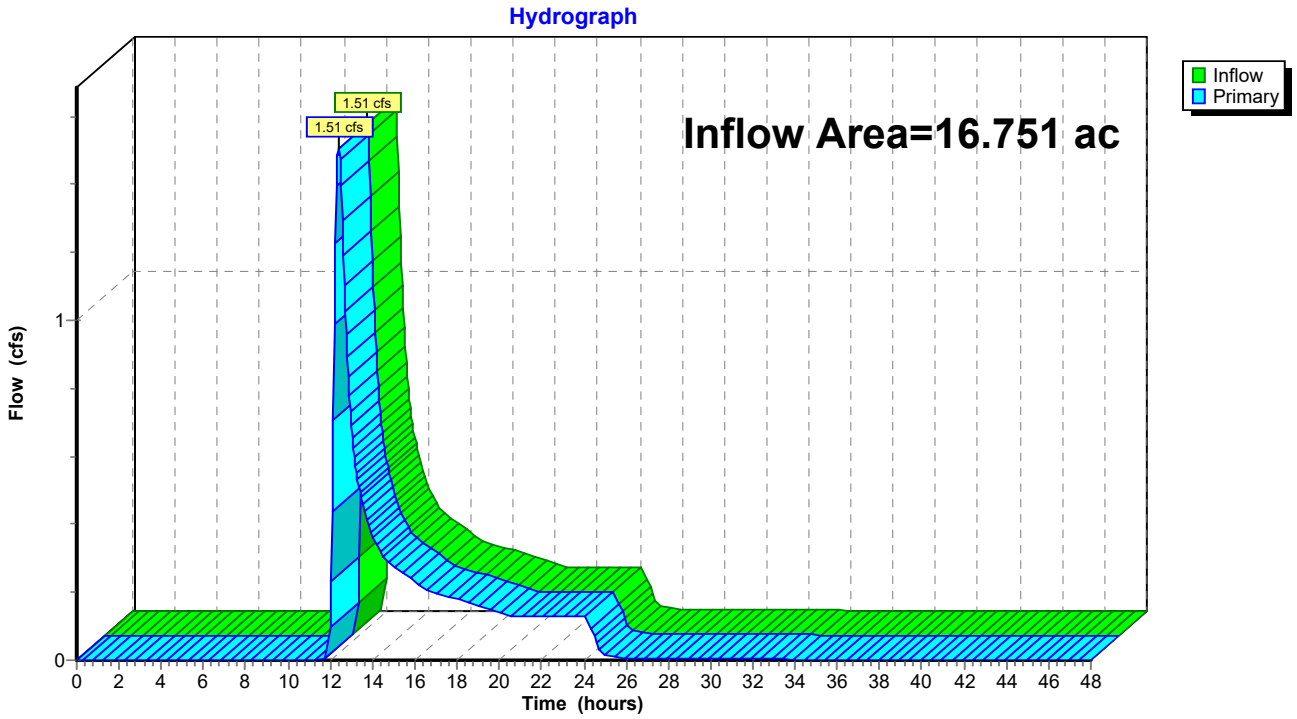


Summary for Link SP23:

Inflow Area = 16.751 ac, 2.31% Impervious, Inflow Depth > 0.20" for 1-year event
Inflow = 1.51 cfs @ 12.39 hrs, Volume= 0.284 af
Primary = 1.51 cfs @ 12.39 hrs, Volume= 0.284 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP23:

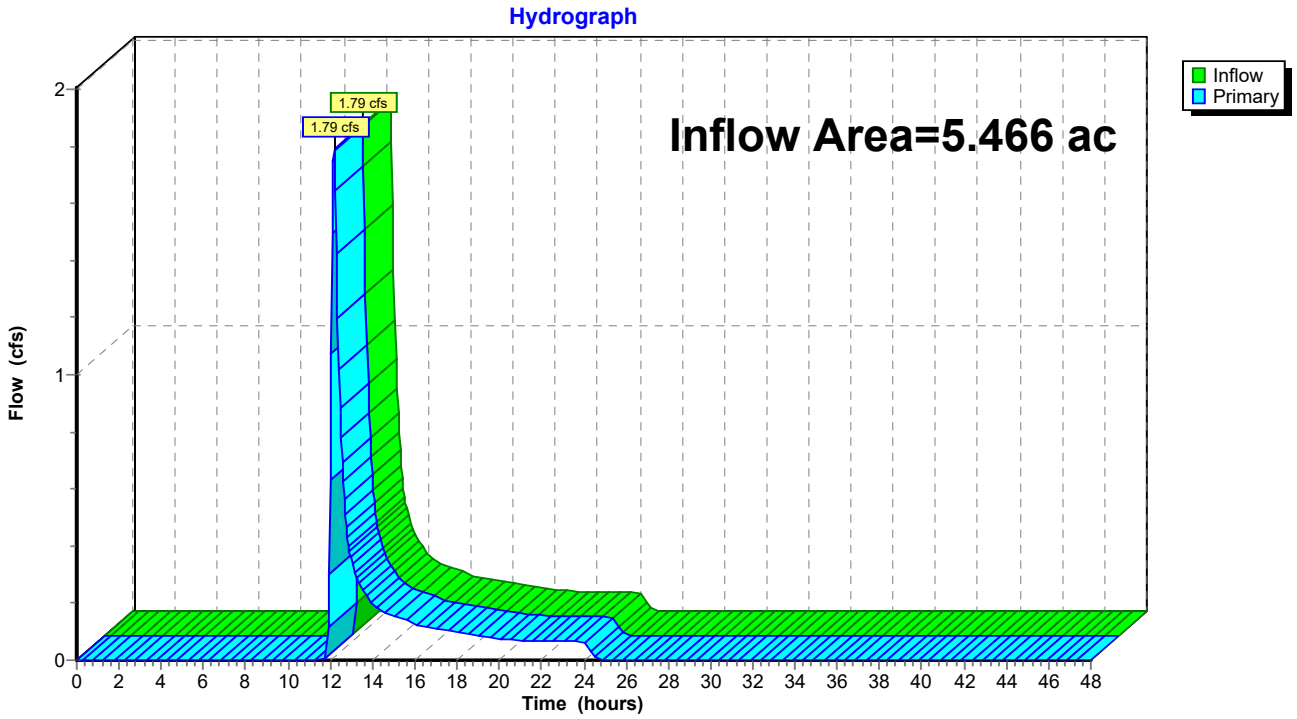


Summary for Link SP24:

Inflow Area = 5.466 ac, 7.70% Impervious, Inflow Depth = 0.40" for 1-year event
Inflow = 1.79 cfs @ 12.18 hrs, Volume= 0.182 af
Primary = 1.79 cfs @ 12.18 hrs, Volume= 0.182 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP24:

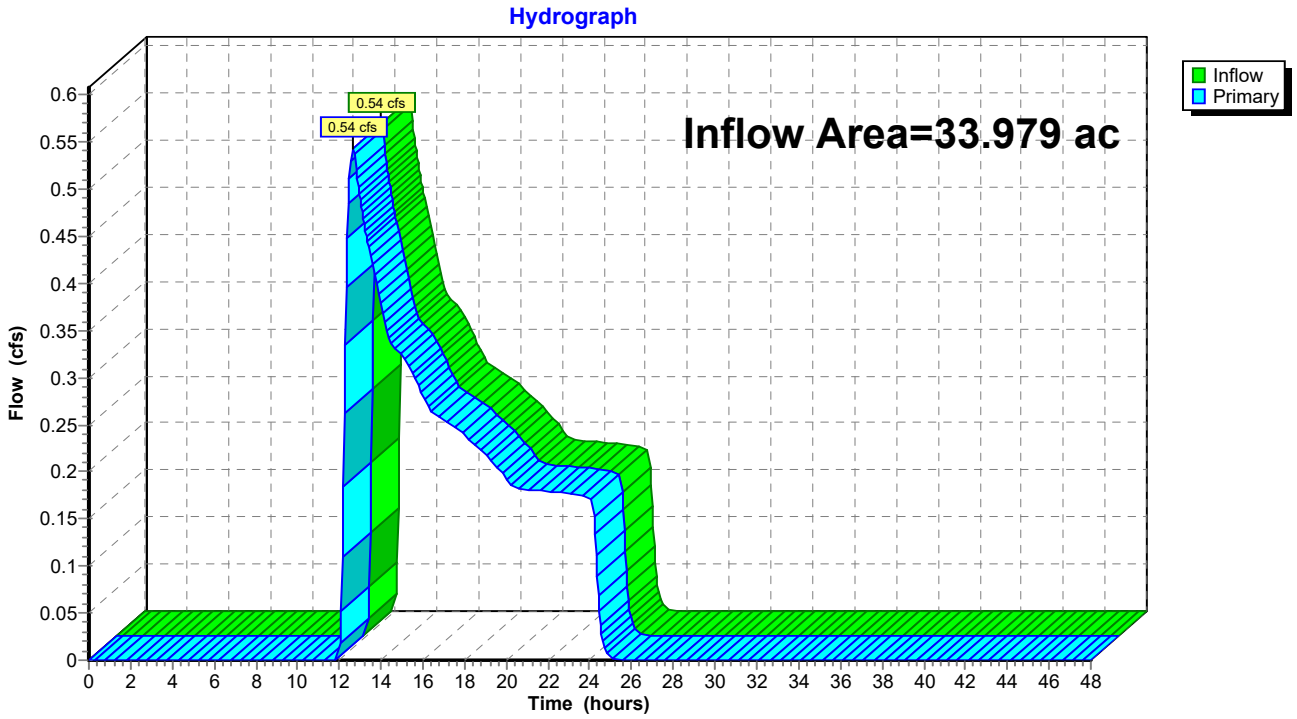


Summary for Link SP3:

Inflow Area = 33.979 ac, 0.00% Impervious, Inflow Depth = 0.09" for 1-year event
Inflow = 0.54 cfs @ 12.64 hrs, Volume= 0.264 af
Primary = 0.54 cfs @ 12.64 hrs, Volume= 0.264 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP3:

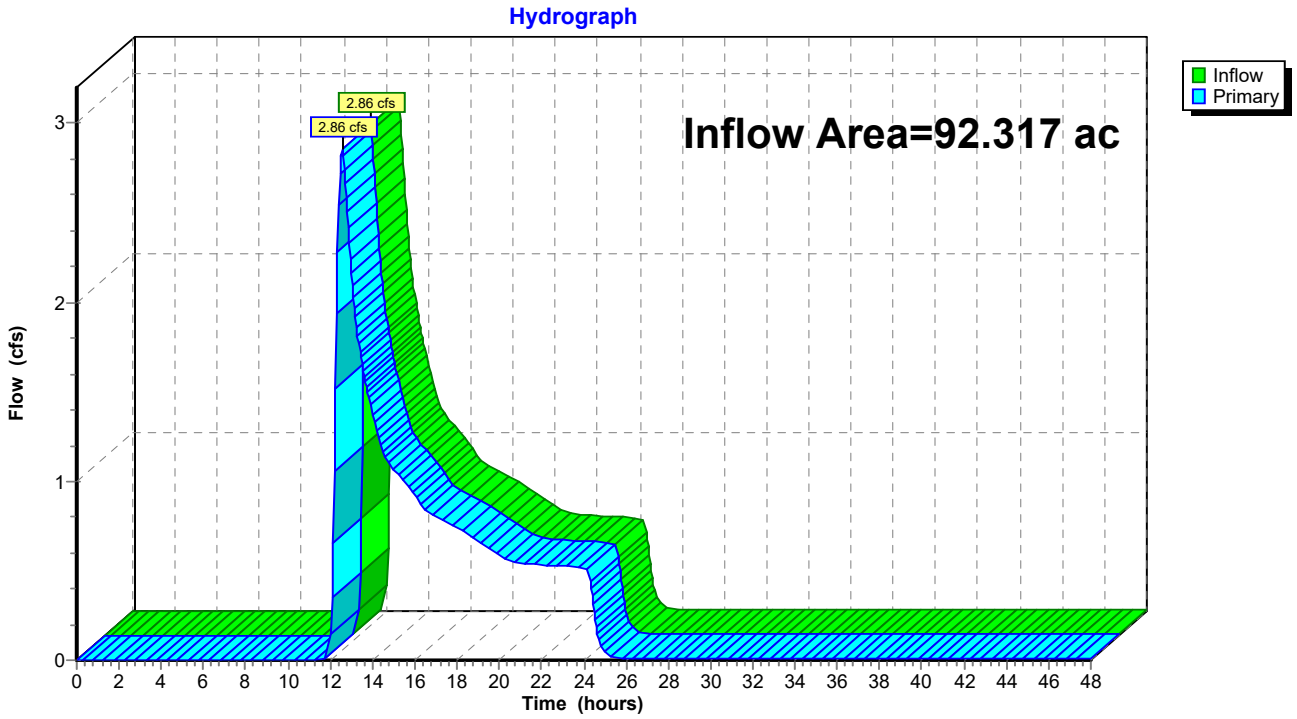


Summary for Link SP4:

Inflow Area = 92.317 ac, 0.28% Impervious, Inflow Depth > 0.12" for 1-year event
Inflow = 2.86 cfs @ 12.55 hrs, Volume= 0.946 af
Primary = 2.86 cfs @ 12.55 hrs, Volume= 0.946 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP4:

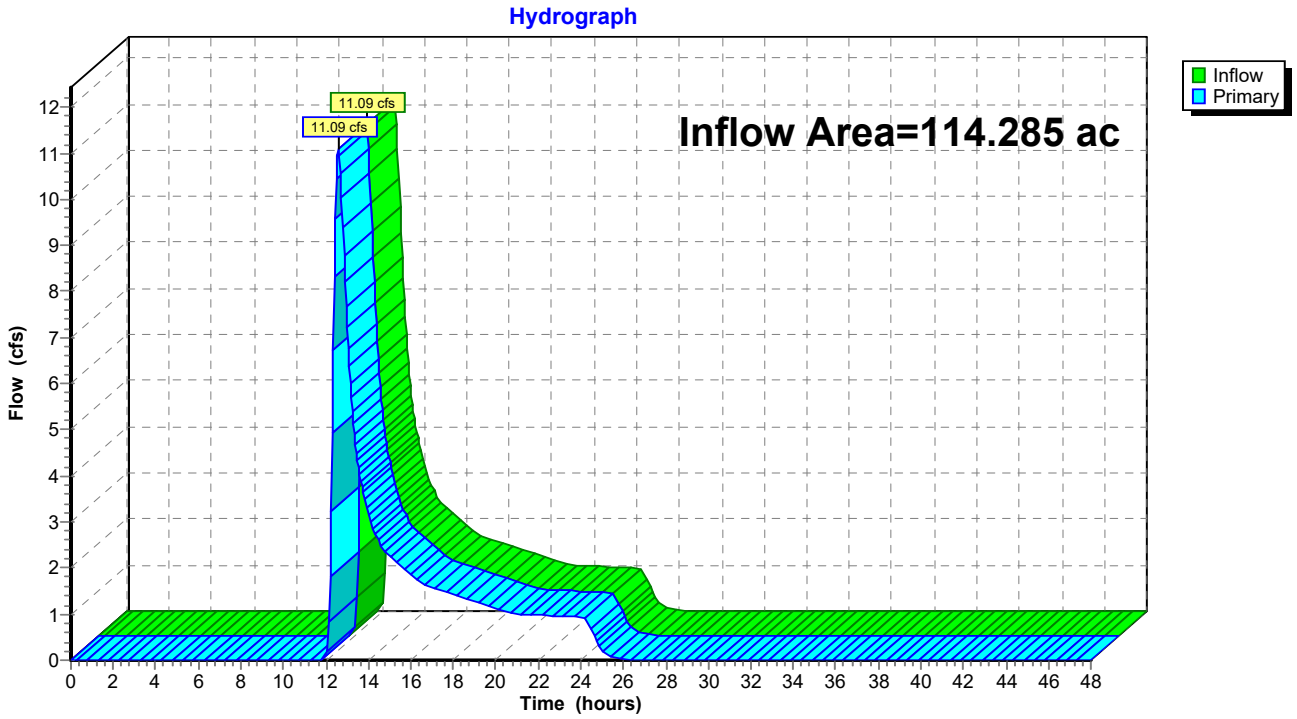


Summary for Link SP43:

Inflow Area = 114.285 ac, 0.15% Impervious, Inflow Depth = 0.23" for 1-year event
Inflow = 11.09 cfs @ 12.60 hrs, Volume= 2.201 af
Primary = 11.09 cfs @ 12.60 hrs, Volume= 2.201 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP43:

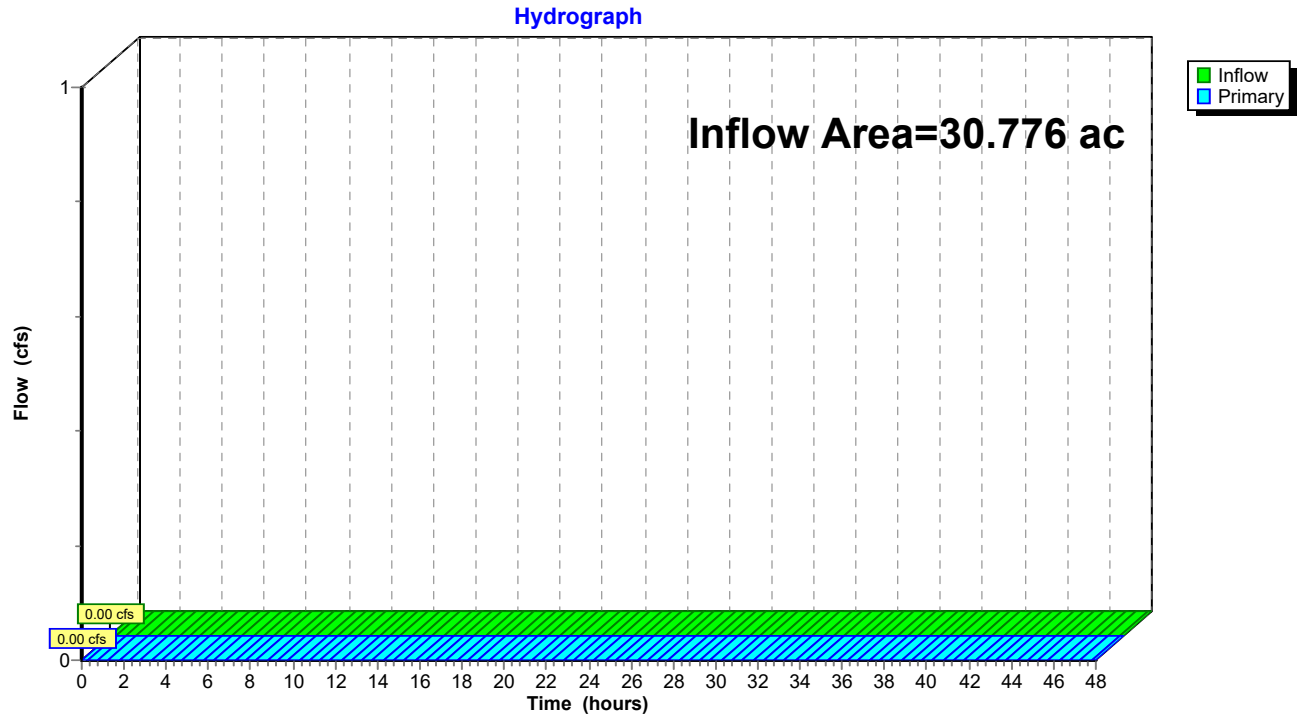


Summary for Link SP46:

Inflow Area = 30.776 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-year event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP46:

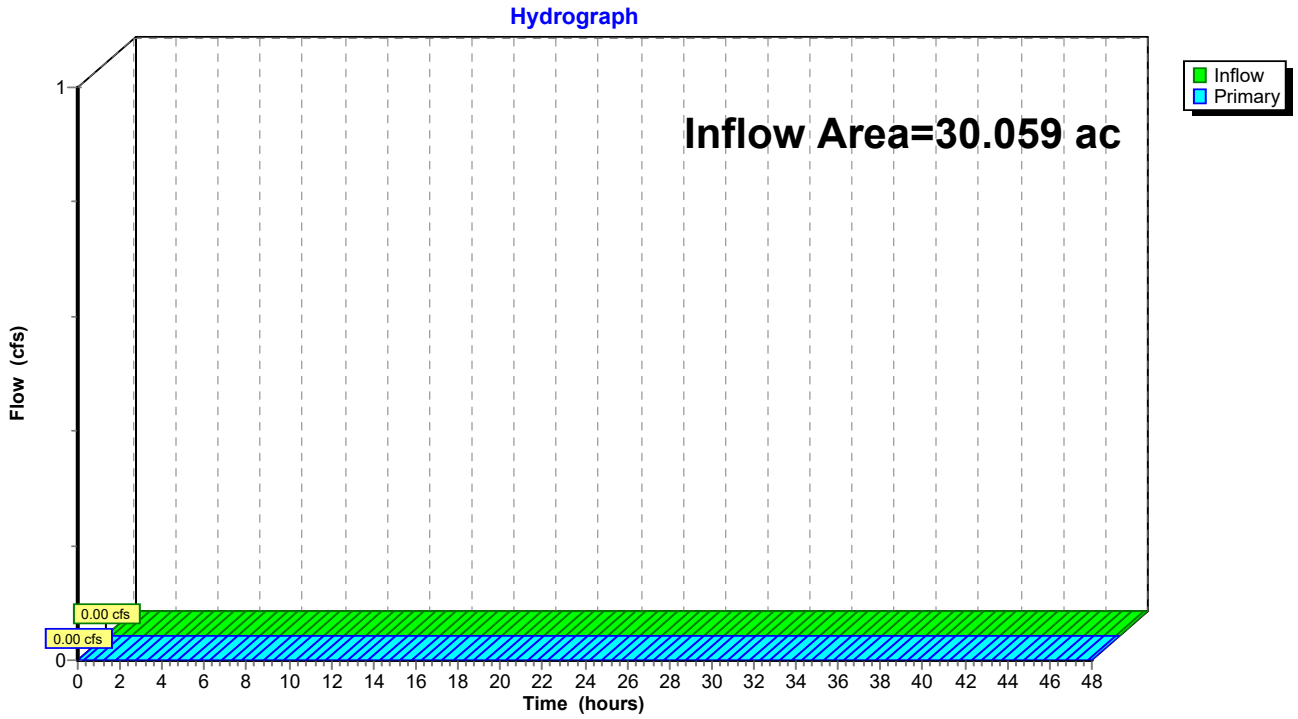


Summary for Link SP47:

Inflow Area = 30.059 ac, 1.25% Impervious, Inflow Depth = 0.00" for 1-year event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP47:

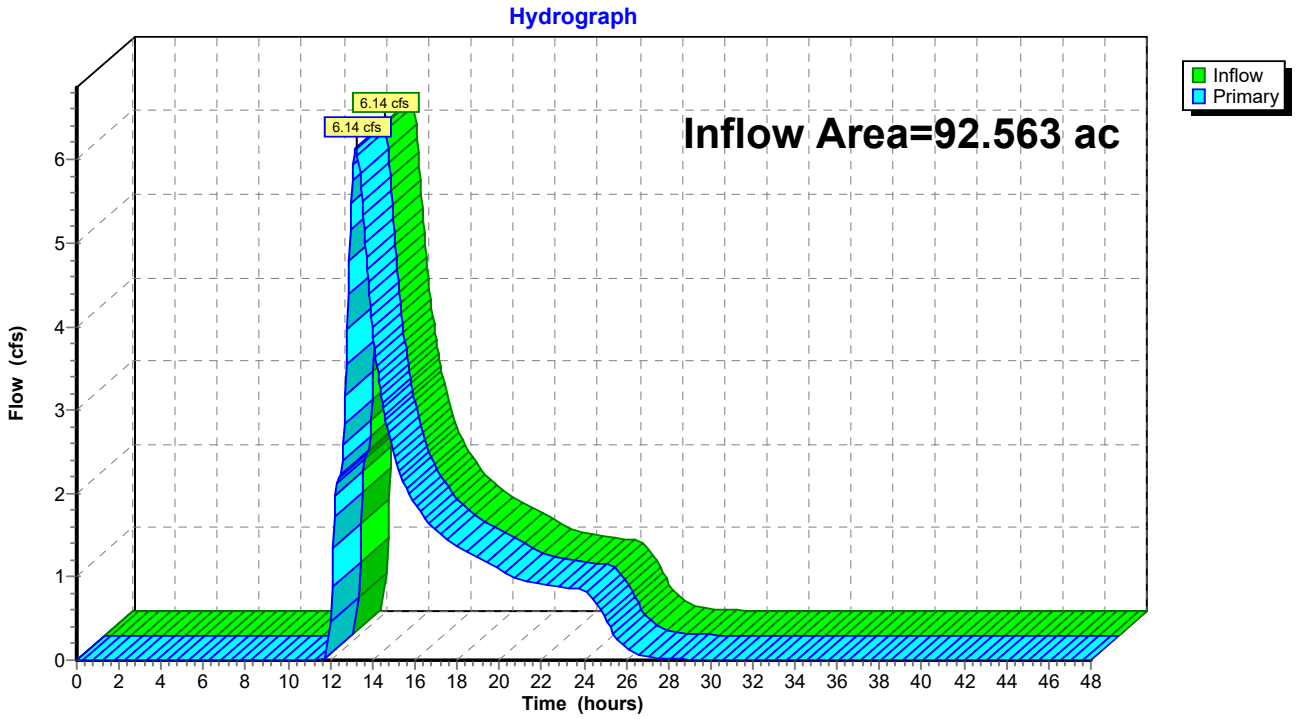


Summary for Link SP5:

Inflow Area = 92.563 ac, 0.00% Impervious, Inflow Depth = 0.25" for 1-year event
Inflow = 6.14 cfs @ 13.23 hrs, Volume= 1.956 af
Primary = 6.14 cfs @ 13.23 hrs, Volume= 1.956 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP5:

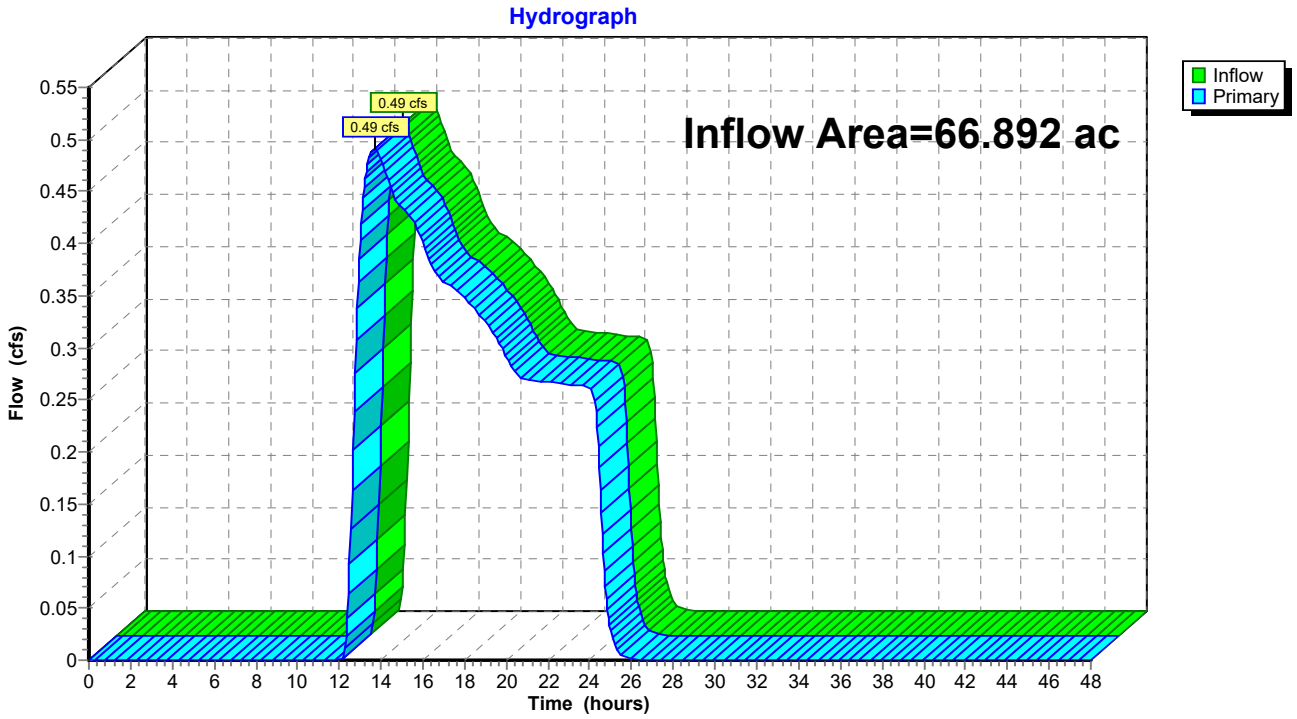


Summary for Link SP7:

Inflow Area = 66.892 ac, 0.00% Impervious, Inflow Depth = 0.06" for 1-year event
Inflow = 0.49 cfs @ 13.70 hrs, Volume= 0.340 af
Primary = 0.49 cfs @ 13.70 hrs, Volume= 0.340 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP7:

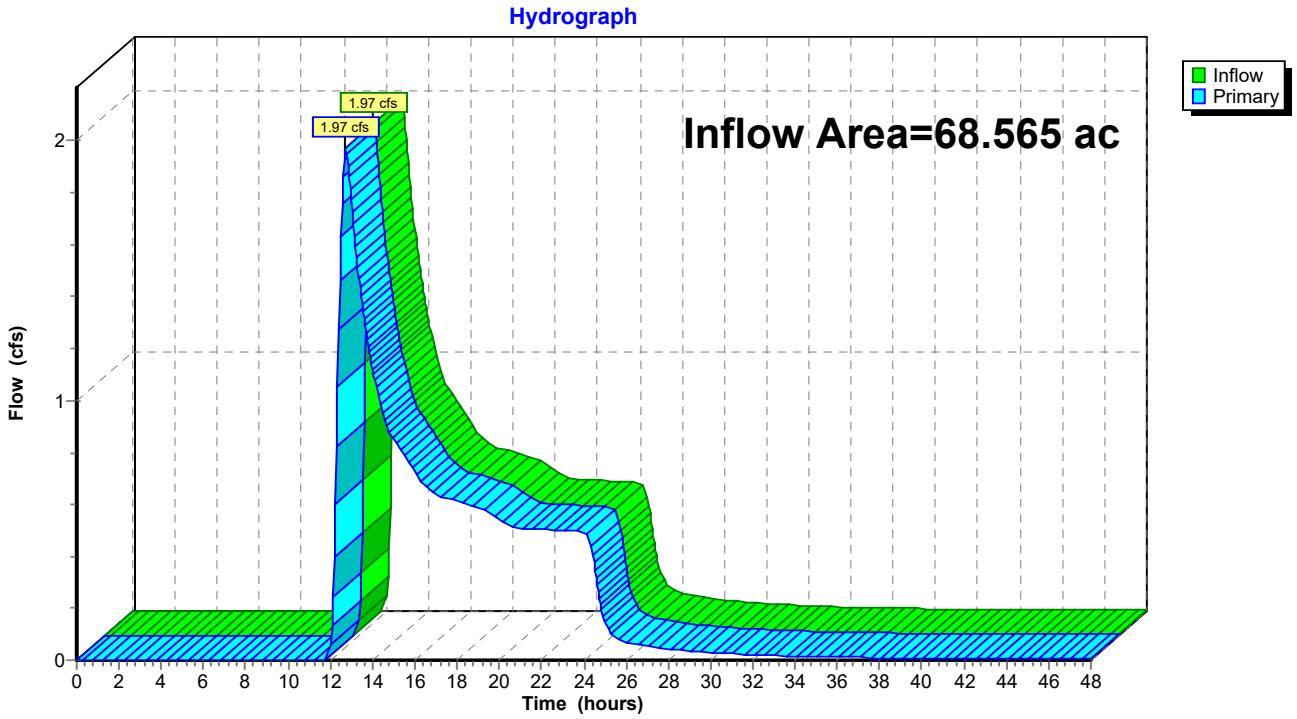


Summary for Link SP9:

Inflow Area = 68.565 ac, 1.11% Impervious, Inflow Depth > 0.14" for 1-year event
Inflow = 1.97 cfs @ 12.72 hrs, Volume= 0.805 af
Primary = 1.97 cfs @ 12.72 hrs, Volume= 0.805 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP9:



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Sub 1 Runoff Area=5.786 ac 0.00% Impervious Runoff Depth=0.38"
Flow Length=1,005' Tc=13.1 min CN=56 Runoff=1.74 cfs 0.183 af

Subcatchment2S: Sub 2 Runoff Area=16.498 ac 0.00% Impervious Runoff Depth=0.38"
Flow Length=1,307' Tc=14.1 min CN=56 Runoff=4.76 cfs 0.523 af

Subcatchment3S: Sub 3 Runoff Area=33.979 ac 0.00% Impervious Runoff Depth=0.53"
Flow Length=2,507' Tc=25.3 min CN=60 Runoff=11.88 cfs 1.505 af

Subcatchment4.1S: Runoff Area=15.089 ac 0.00% Impervious Runoff Depth=0.90"
Tc=6.0 min CN=68 Runoff=22.83 cfs 1.133 af

Subcatchment4S: Sub 4 Runoff Area=77.228 ac 0.34% Impervious Runoff Depth=0.66"
Flow Length=4,160' Tc=35.5 min CN=63 Runoff=29.81 cfs 4.245 af

Subcatchment5S: Sub 5 Runoff Area=17.299 ac 0.00% Impervious Runoff Depth=0.80"
Flow Length=1,946' Tc=24.6 min CN=66 Runoff=11.48 cfs 1.154 af

Subcatchment6S: Sub 6 Runoff Area=16.301 ac 0.00% Impervious Runoff Depth=0.80"
Flow Length=1,894' Tc=48.6 min CN=66 Runoff=6.63 cfs 1.087 af

Subcatchment7.1: Sub 7.1 Runoff Area=4.575 ac 0.00% Impervious Runoff Depth=0.49"
Flow Length=1,051' Tc=14.9 min CN=59 Runoff=2.02 cfs 0.187 af

Subcatchment7S: Sub 7 Runoff Area=62.317 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=2,117' Tc=40.9 min CN=58 Runoff=11.99 cfs 2.352 af

Subcatchment8S: Sub 8 Runoff Area=58.963 ac 0.00% Impervious Runoff Depth=0.95"
Flow Length=2,902' Tc=63.3 min CN=69 Runoff=25.13 cfs 4.687 af

Subcatchment9.1S: Sub 9.1 Runoff Area=8.972 ac 0.00% Impervious Runoff Depth=1.18"
Flow Length=873' Tc=34.1 min CN=73 Runoff=7.88 cfs 0.882 af

Subcatchment9S: Sub 9 Runoff Area=59.593 ac 1.28% Impervious Runoff Depth=0.66"
Flow Length=2,945' Tc=45.6 min CN=63 Runoff=19.21 cfs 3.276 af

Subcatchment10.1S: Sub 10.1 Runoff Area=2.860 ac 0.00% Impervious Runoff Depth=1.06"
Tc=18.7 min CN=71 Runoff=3.27 cfs 0.254 af

Subcatchment10S: Sub 10 Runoff Area=19.376 ac 5.62% Impervious Runoff Depth=1.12"
Flow Length=2,047' Tc=36.7 min CN=72 Runoff=15.17 cfs 1.810 af

Subcatchment11S: Sub 11 Runoff Area=17.595 ac 2.63% Impervious Runoff Depth=0.75"
Flow Length=1,622' Tc=19.0 min CN=65 Runoff=12.71 cfs 1.103 af

Subcatchment12S: Sub 12 Runoff Area=4.859 ac 53.67% Impervious Runoff Depth=3.15"
Tc=6.0 min CN=97 Runoff=23.14 cfs 1.277 af

Subcatchment13S: Sub 13 Runoff Area=10.383 ac 0.18% Impervious Runoff Depth=0.66"
Flow Length=849' Tc=17.7 min CN=63 Runoff=6.49 cfs 0.571 af

Subcatchment14S: Sub 14 Runoff Area=72.734 ac 0.42% Impervious Runoff Depth=0.85"
Flow Length=4,131' Tc=49.6 min CN=67 Runoff=31.66 cfs 5.152 af

Subcatchment17S: Sub 17 Runoff Area=97.893 ac 1.18% Impervious Runoff Depth=0.53"
Flow Length=3,526' Tc=35.1 min CN=60 Runoff=27.14 cfs 4.335 af

Subcatchment18S: Sub 18 Runoff Area=45.578 ac 0.74% Impervious Runoff Depth=0.90"
Flow Length=2,382' Tc=42.2 min CN=68 Runoff=24.23 cfs 3.423 af

Subcatchment19S: Sub 19 Runoff Area=28.407 ac 0.54% Impervious Runoff Depth=1.12"
Flow Length=1,760' Tc=30.4 min CN=72 Runoff=25.36 cfs 2.653 af

Subcatchment20S: Sub 20 Runoff Area=70.525 ac 0.78% Impervious Runoff Depth=0.80"
Flow Length=1,829' Tc=21.6 min UI Adjusted CN=66 Runoff=51.14 cfs 4.704 af

Subcatchment21S: Sub 21 Runoff Area=123.016 ac 3.33% Impervious Runoff Depth=0.85"
Flow Length=4,201' Tc=42.5 min CN=67 Runoff=60.04 cfs 8.714 af

Subcatchment22S: Sub 22 Runoff Area=62.296 ac 0.60% Impervious Runoff Depth=1.12"
Flow Length=1,648' Tc=34.6 min CN=72 Runoff=50.80 cfs 5.819 af

Subcatchment23.1: Sub 23.1 Runoff Area=3.682 ac 0.00% Impervious Runoff Depth=1.01"
Tc=6.0 min CN=70 Runoff=6.33 cfs 0.309 af

Subcatchment23S: Sub 23 Runoff Area=13.069 ac 2.96% Impervious Runoff Depth=0.90"
Flow Length=1,297' Tc=33.2 min UI Adjusted CN=68 Runoff=8.27 cfs 0.982 af

Subcatchment24S: Sub 24 Runoff Area=5.466 ac 7.70% Impervious Runoff Depth=1.18"
Flow Length=1,059' Tc=21.5 min UI Adjusted CN=73 Runoff=6.53 cfs 0.537 af

Subcatchment43: Subcat 43 Runoff Area=34.065 ac 0.27% Impervious Runoff Depth=1.06"
Flow Length=2,795' Tc=40.7 min CN=71 Runoff=23.12 cfs 3.020 af

Subcatchment44.1S: 44.1S Runoff Area=6.425 ac 0.00% Impervious Runoff Depth=1.50"
Tc=6.0 min CN=78 Runoff=16.76 cfs 0.802 af

Subcatchment44S: 44S Runoff Area=39.864 ac 0.00% Impervious Runoff Depth=1.01"
Flow Length=2,470' Tc=41.7 min CN=70 Runoff=24.83 cfs 3.349 af

Subcatchment45: Subcat 45 Runoff Area=33.931 ac 0.22% Impervious Runoff Depth=0.49"
Flow Length=2,198' Tc=29.8 min CN=59 Runoff=9.30 cfs 1.390 af

Subcatchment46.1S: 46.1S Runoff Area=238,360 sf 0.00% Impervious Runoff Depth=0.08"
Flow Length=719' Tc=31.5 min CN=45 Runoff=0.05 cfs 0.038 af

Subcatchment46S: Subcat 46 Runoff Area=1,102,260 sf 0.00% Impervious Runoff Depth=0.03"
Flow Length=1,524' Tc=54.0 min CN=41 Runoff=0.08 cfs 0.054 af

Subcatchment47S: Sub 47 Runoff Area=1,309,372 sf 1.25% Impervious Runoff Depth=0.02"
Flow Length=1,895' Tc=43.3 min UI Adjusted CN=40 Runoff=0.07 cfs 0.040 af

Reach 6R: W-NSD-35 Avg. Flow Depth=0.49' Max Vel=3.83 fps Inflow=25.13 cfs 4.687 af
n=0.035 L=1,882.0' S=0.0276 '/' Capacity=25.08 cfs Outflow=24.41 cfs 4.687 af

Reach 13.1R: Avg. Flow Depth=0.09' Max Vel=2.27 fps Inflow=1.50 cfs 1.277 af
n=0.030 L=165.0' S=0.0727 '/' Capacity=48.67 cfs Outflow=1.50 cfs 1.277 af

Reach 13.2R: Avg. Flow Depth=0.14' Max Vel=4.75 fps Inflow=1.50 cfs 1.277 af
n=0.035 L=232.0' S=0.2069 '/' Capacity=1,230.81 cfs Outflow=1.50 cfs 1.277 af

Reach 20.1R: S-KCF-6 Avg. Flow Depth=1.68' Max Vel=2.94 fps Inflow=74.09 cfs 7.357 af
n=0.030 L=1,405.0' S=0.0028 '/' Capacity=141.69 cfs Outflow=63.82 cfs 7.357 af

Reach 20.2R: Avg. Flow Depth=1.21' Max Vel=4.34 fps Inflow=63.82 cfs 7.357 af
n=0.035 L=1,322.0' S=0.0121 '/' Capacity=250.41 cfs Outflow=60.47 cfs 7.357 af

Reach 22.1R: S-KCF-5 Avg. Flow Depth=1.20' Max Vel=3.65 fps Inflow=60.04 cfs 8.714 af
n=0.030 L=665.0' S=0.0060 '/' Capacity=89.91 cfs Outflow=59.61 cfs 8.714 af

Reach 22.2R: Avg. Flow Depth=1.80' Max Vel=4.31 fps Inflow=119.45 cfs 16.071 af
n=0.035 L=707.0' S=0.0075 '/' Capacity=86.27 cfs Outflow=118.14 cfs 16.071 af

Reach 44R: Avg. Flow Depth=0.88' Max Vel=4.15 fps Inflow=23.12 cfs 3.020 af
n=0.035 L=498.0' S=0.0321 '/' Capacity=8.70 cfs Outflow=22.92 cfs 3.020 af

Reach 45R: Avg. Flow Depth=1.06' Max Vel=5.94 fps Inflow=47.62 cfs 6.369 af
n=0.035 L=537.0' S=0.0372 '/' Capacity=16.21 cfs Outflow=47.30 cfs 6.369 af

Pond 4.1P: 4.1P Peak Elev=492.91' Storage=35,092 cf Inflow=22.83 cfs 1.133 af
Primary=0.36 cfs 0.750 af Secondary=0.00 cfs 0.000 af Outflow=0.36 cfs 0.750 af

Pond 7.1P: Peak Elev=513.13' Storage=8,163 cf Inflow=2.02 cfs 0.187 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 9.1P: 9.1P Peak Elev=468.44' Storage=23,148 cf Inflow=7.88 cfs 0.882 af
Primary=0.47 cfs 0.668 af Secondary=0.00 cfs 0.000 af Outflow=0.47 cfs 0.668 af

Pond 10.1P: 10.1P Peak Elev=569.52' Storage=9,292 cf Inflow=3.27 cfs 0.254 af
Primary=0.10 cfs 0.043 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.043 af

Pond 12P: 12P Peak Elev=507.86' Storage=22,918 cf Inflow=23.14 cfs 1.277 af
8.0" Round Culvert n=0.013 L=172.7' S=0.0058 '/' Outflow=1.50 cfs 1.277 af

Pond 23.1P: 23.1P Peak Elev=493.50' Storage=5,908 cf Inflow=6.33 cfs 0.309 af
Primary=0.47 cfs 0.222 af Secondary=0.00 cfs 0.000 af Outflow=0.47 cfs 0.222 af

Pond 44.1P: 44.1P Peak Elev=427.53' Storage=32,067 cf Inflow=16.76 cfs 0.802 af
Primary=0.14 cfs 0.168 af Secondary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.168 af

Pond 46.1P: 46.1P Peak Elev=354.25' Storage=1,667 cf Inflow=0.05 cfs 0.038 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Link SP1: Inflow=1.74 cfs 0.183 af
Primary=1.74 cfs 0.183 af

Link SP10: Inflow=15.17 cfs 1.853 af
Primary=15.17 cfs 1.853 af

Link SP11: Inflow=12.71 cfs 1.103 af
Primary=12.71 cfs 1.103 af

Link SP13: Inflow=7.96 cfs 1.847 af
Primary=7.96 cfs 1.847 af

Link SP14: Inflow=31.66 cfs 5.152 af
Primary=31.66 cfs 5.152 af

Link SP17: Inflow=27.14 cfs 4.335 af
Primary=27.14 cfs 4.335 af

Link SP18: Inflow=24.23 cfs 3.423 af
Primary=24.23 cfs 3.423 af

Link SP2: Inflow=4.76 cfs 0.523 af
Primary=4.76 cfs 0.523 af

Link SP22: Inflow=147.26 cfs 21.891 af
Primary=147.26 cfs 21.891 af

Link SP23: Inflow=8.66 cfs 1.203 af
Primary=8.66 cfs 1.203 af

Link SP24: Inflow=6.53 cfs 0.537 af
Primary=6.53 cfs 0.537 af

Link SP3: Inflow=11.88 cfs 1.505 af
Primary=11.88 cfs 1.505 af

Link SP4: Inflow=29.94 cfs 4.995 af
Primary=29.94 cfs 4.995 af

Link SP43: Inflow=54.76 cfs 7.926 af
Primary=54.76 cfs 7.926 af

Link SP46: Inflow=0.08 cfs 0.054 af
Primary=0.08 cfs 0.054 af

Link SP47: Inflow=0.07 cfs 0.040 af
Primary=0.07 cfs 0.040 af

Link SP5: Inflow=31.13 cfs 6.928 af
Primary=31.13 cfs 6.928 af

Link SP7: Inflow=11.99 cfs 2.352 af
Primary=11.99 cfs 2.352 af

Link SP9: Inflow=19.40 cfs 3.943 af
Primary=19.40 cfs 3.943 af

Total Runoff Area = 1,129.459 ac Runoff Volume = 71.551 af Average Runoff Depth = 0.76"
98.80% Pervious = 1,115.941 ac 1.20% Impervious = 13.519 ac

Summary for Subcatchment 1S: Sub 1

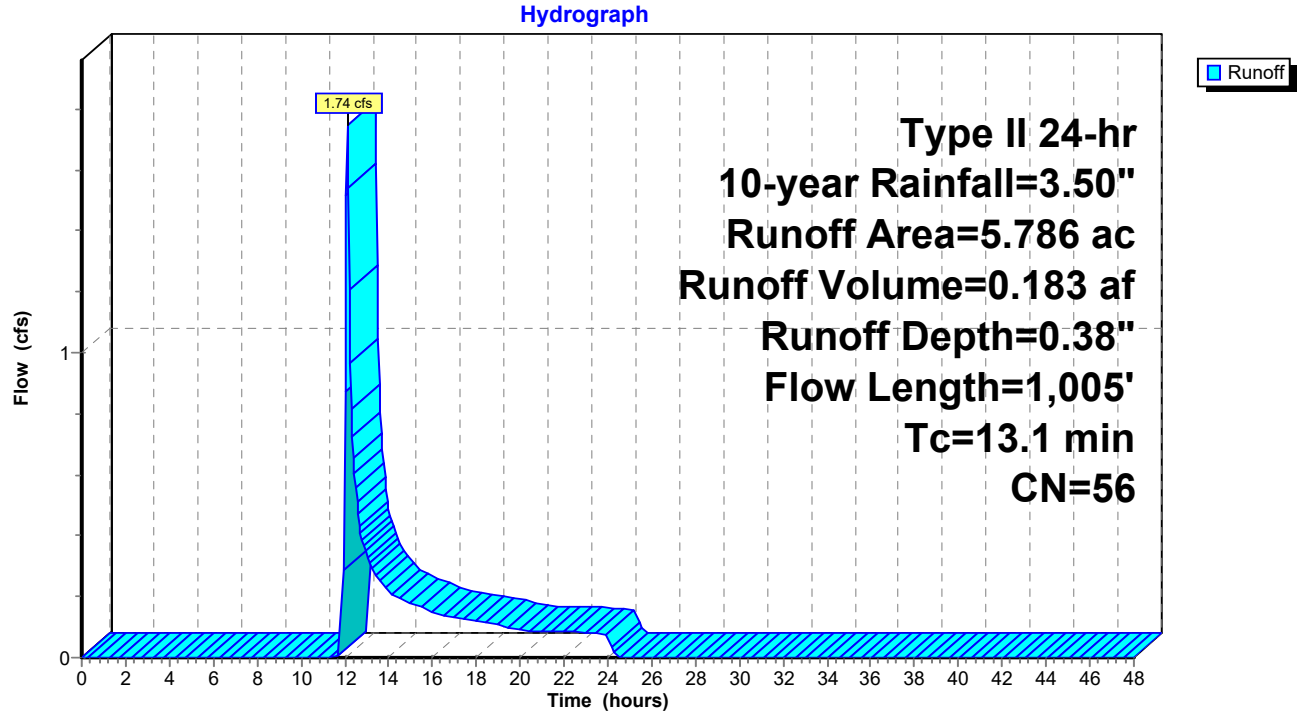
Runoff = 1.74 cfs @ 12.10 hrs, Volume= 0.183 af, Depth= 0.38"
Routed to Link SP1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
1.637	58	Meadow, non-grazed, HSG B
4.149	55	Woods, Good, HSG B
5.786	56	Weighted Average
5.786		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0620	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.9	427	0.2390	2.44		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.0	263	0.0980	2.19		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	215	0.4050	3.18		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
13.1	1,005	Total			

Subcatchment 1S: Sub 1



Summary for Subcatchment 2S: Sub 2

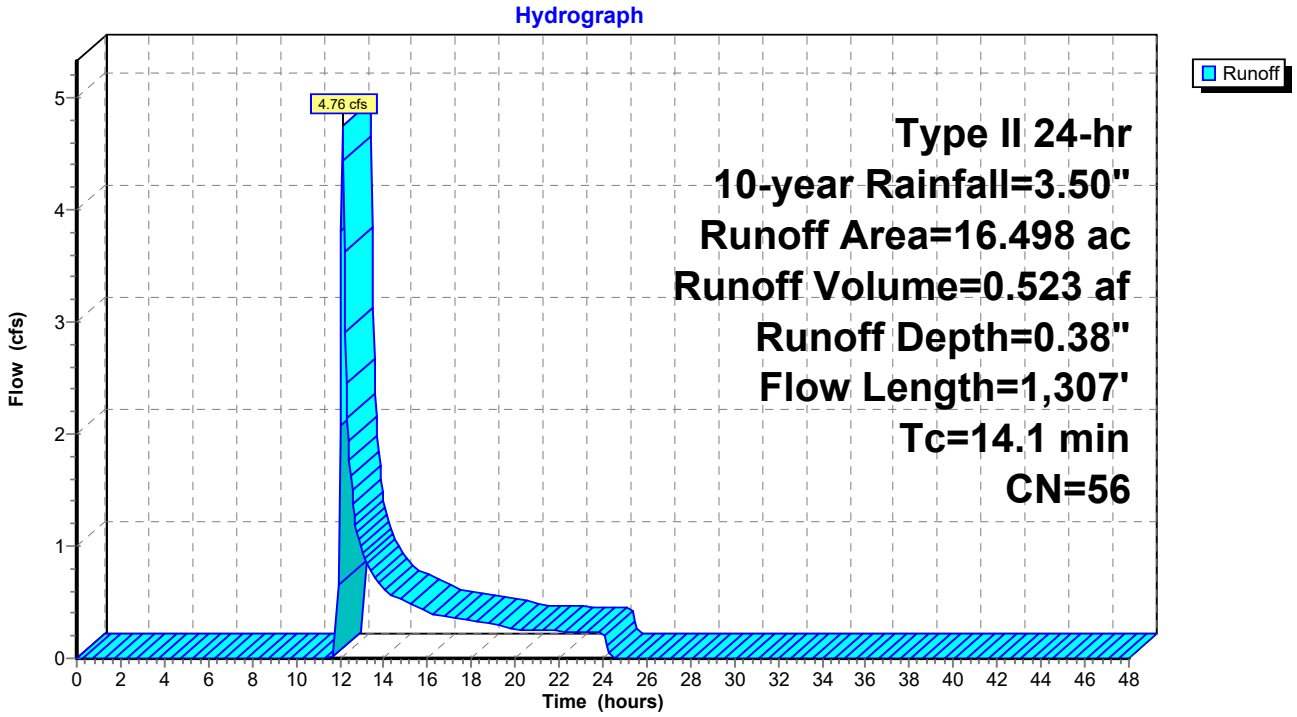
Runoff = 4.76 cfs @ 12.11 hrs, Volume= 0.523 af, Depth= 0.38"
Routed to Link SP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.124	30	Meadow, non-grazed, HSG A
8.883	58	Meadow, non-grazed, HSG B
7.491	55	Woods, Good, HSG B
16.498	56	Weighted Average
16.498		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1010	0.29		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.8	407	0.2420	2.46		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	225	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	169	0.1830	2.14		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	113	0.5100	3.57		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.2	293	0.0220	2.22		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
14.1	1,307	Total			

Subcatchment 2S: Sub 2



Summary for Subcatchment 3S: Sub 3

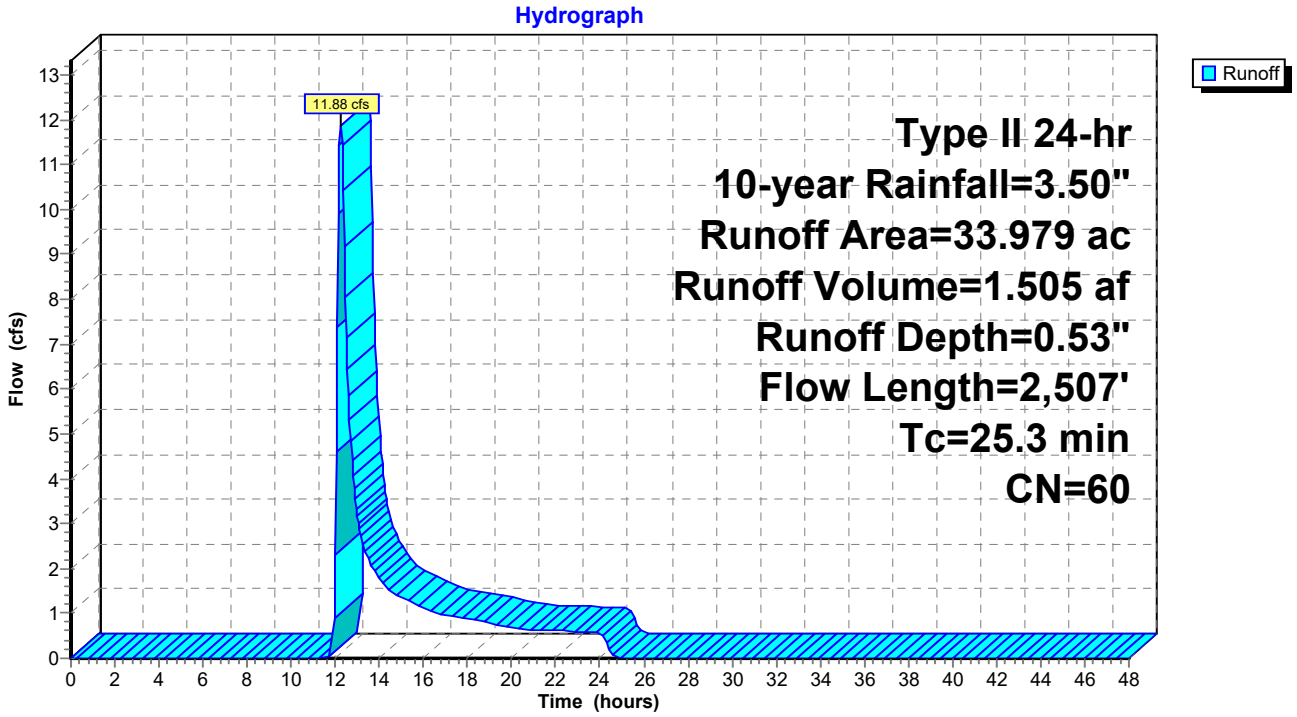
Runoff = 11.88 cfs @ 12.25 hrs, Volume= 1.505 af, Depth= 0.53"
Routed to Link SP3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
18.697	58	Meadow, non-grazed, HSG B
7.336	71	Meadow, non-grazed, HSG C
7.021	55	Woods, Good, HSG B
0.032	70	Woods, Good, HSG C
0.530	96	Gravel surface, HSG A
0.363	30	Meadow, non-grazed, HSG A
33.979	60	Weighted Average
33.979		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.0400	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
9.4	1,002	0.0640	1.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	337	0.0940	1.53		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.5	632		4.29		**Direct Entry, CF**
1.3	436		5.59		**Direct Entry, CF**
25.3	2,507	Total			

Subcatchment 3S: Sub 3



Summary for Subcatchment 4.1S:

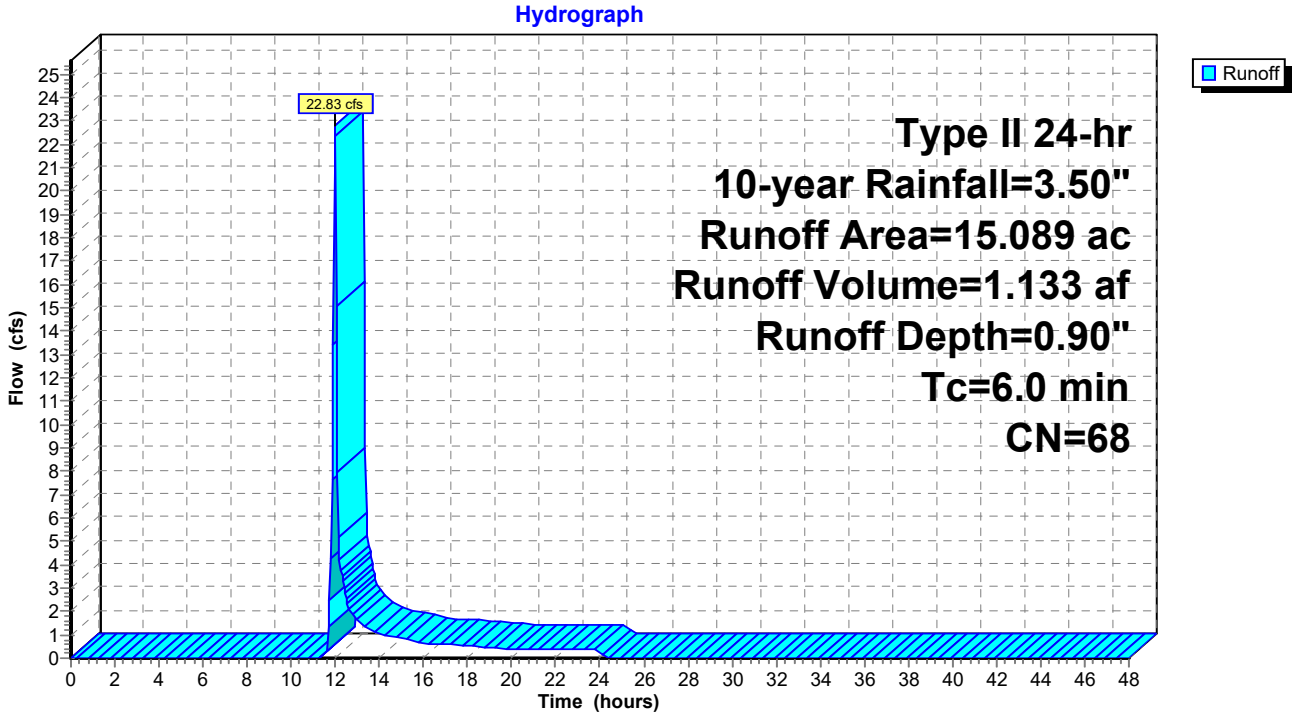
Runoff = 22.83 cfs @ 11.98 hrs, Volume= 1.133 af, Depth= 0.90"
Routed to Pond 4.1P : 4.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	10.486	71	Meadow, non-grazed, HSG C
*	0.460	96	Gravel
	4.143	58	Meadow, non-grazed, HSG B
	15.089	68	Weighted Average
	15.089		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4.1S:



Summary for Subcatchment 4S: Sub 4

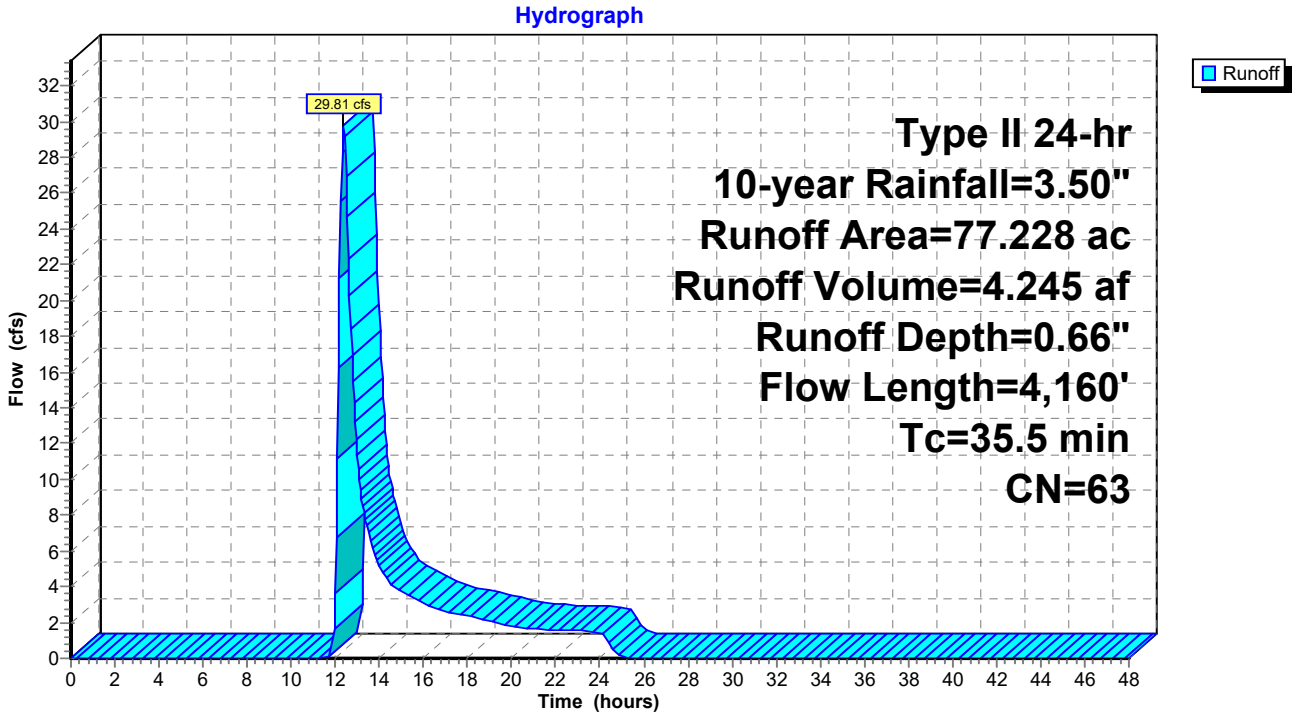
Runoff = 29.81 cfs @ 12.37 hrs, Volume= 4.245 af, Depth= 0.66"
Routed to Link SP4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	0.192	48	Brush, Good, HSG B
*	1.316	96	Gravel surface
*	0.259	98	Unconnected roofs
	0.393	30	Meadow, non-grazed, HSG A
	37.390	58	Meadow, non-grazed, HSG B
	23.983	71	Meadow, non-grazed, HSG C
	10.293	55	Woods, Good, HSG B
	3.402	70	Woods, Good, HSG C
	77.228	63	Weighted Average
	76.969		99.66% Pervious Area
	0.259		0.34% Impervious Area
	0.259		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.1900	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
1.8	295	0.1550	2.76		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.1	1,344	0.0350	1.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	2,421		6.02		**Direct Entry, CF**
35.5	4,160	Total			

Subcatchment 4S: Sub 4



Summary for Subcatchment 5S: Sub 5

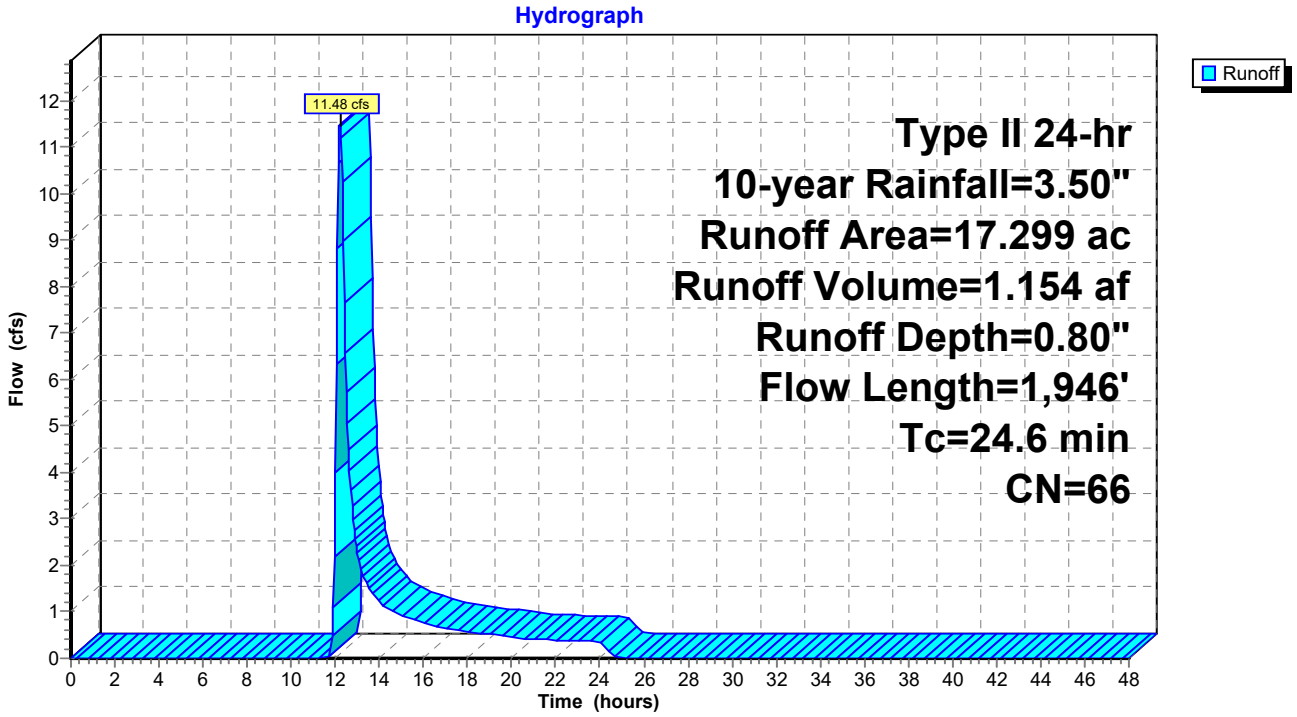
Runoff = 11.48 cfs @ 12.21 hrs, Volume= 1.154 af, Depth= 0.80"
Routed to Link SP5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
6.510	58	Meadow, non-grazed, HSG B
8.386	71	Meadow, non-grazed, HSG C
0.686	55	Woods, Good, HSG B
1.558	70	Woods, Good, HSG C
0.159	96	Gravel surface, HSG A
17.299	66	Weighted Average
17.299		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	100	0.0220	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.9	607	0.0440	1.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	195	0.0780	1.40		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.7	1,044		3.70		**Direct Entry, CF**
24.6	1,946	Total			

Subcatchment 5S: Sub 5



Summary for Subcatchment 6S: Sub 6

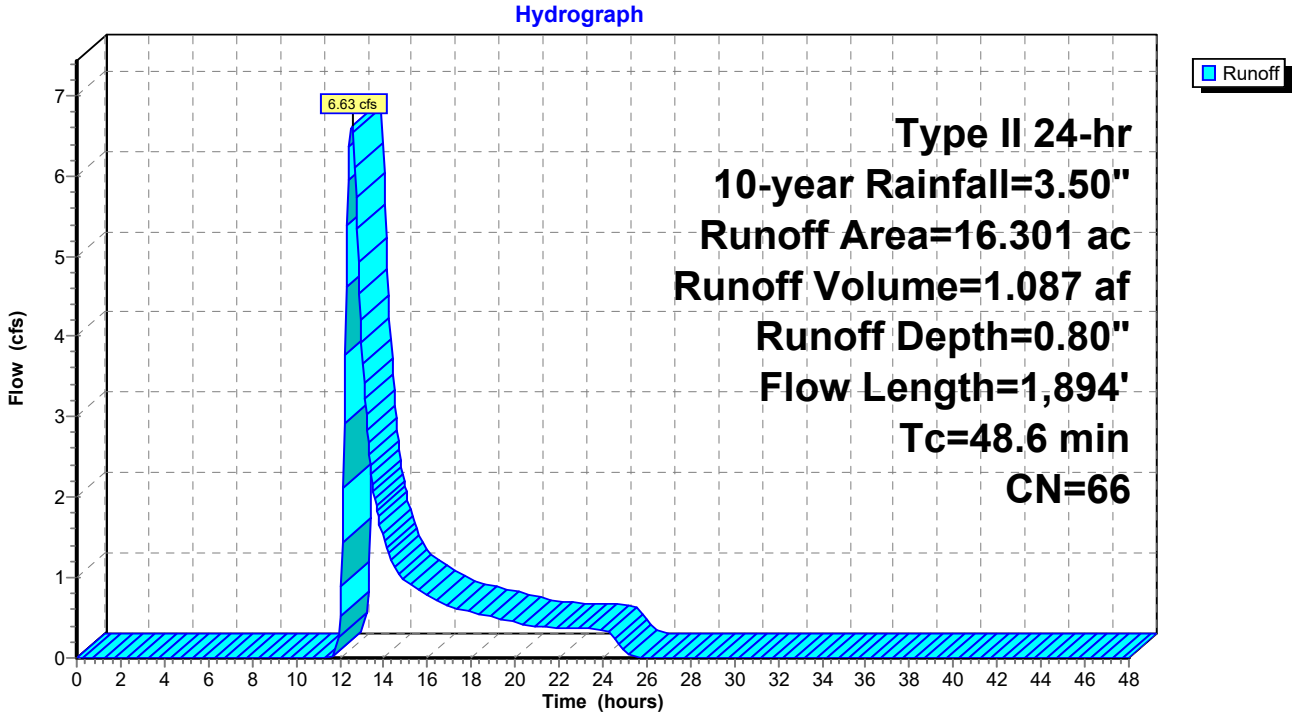
Runoff = 6.63 cfs @ 12.55 hrs, Volume= 1.087 af, Depth= 0.80"
Routed to Link SP5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
6.064	58	Meadow, non-grazed, HSG B
9.461	71	Meadow, non-grazed, HSG C
0.126	55	Woods, Good, HSG B
0.650	70	Woods, Good, HSG C
16.301	66	Weighted Average
16.301		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.8	100	0.0020	0.06		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
19.8	1,554	0.0350	1.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	240		3.81		**Direct Entry, CF**
48.6	1,894	Total			

Subcatchment 6S: Sub 6



Summary for Subcatchment 7.1: Sub 7.1

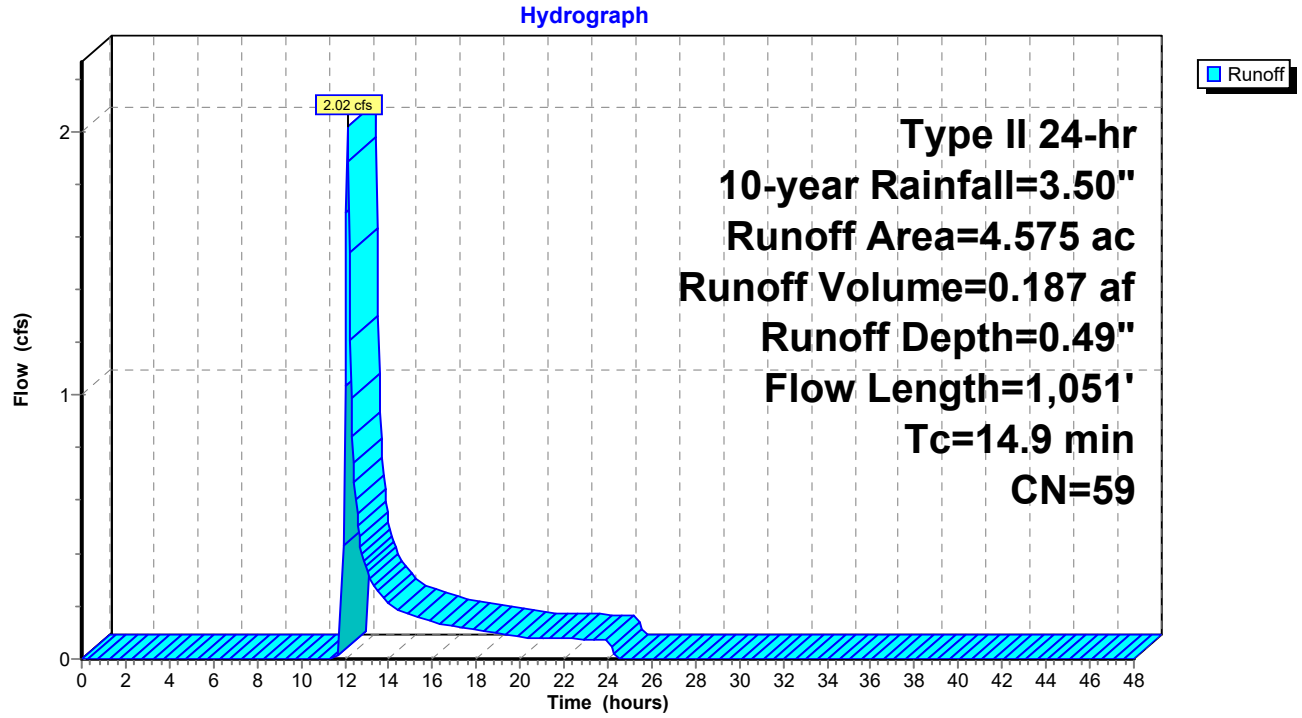
Runoff = 2.02 cfs @ 12.11 hrs, Volume= 0.187 af, Depth= 0.49"
Routed to Pond 7.1P :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
4.216	58	Meadow, non-grazed, HSG B
0.131	96	Gravel surface, HSG B
0.228	55	Woods, Good, HSG B
4.575	59	Weighted Average
4.575		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.0640	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.7	90	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	54	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
6.7	807	0.0820	2.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.9	1,051	Total			

Subcatchment 7.1: Sub 7.1



Summary for Subcatchment 7S: Sub 7

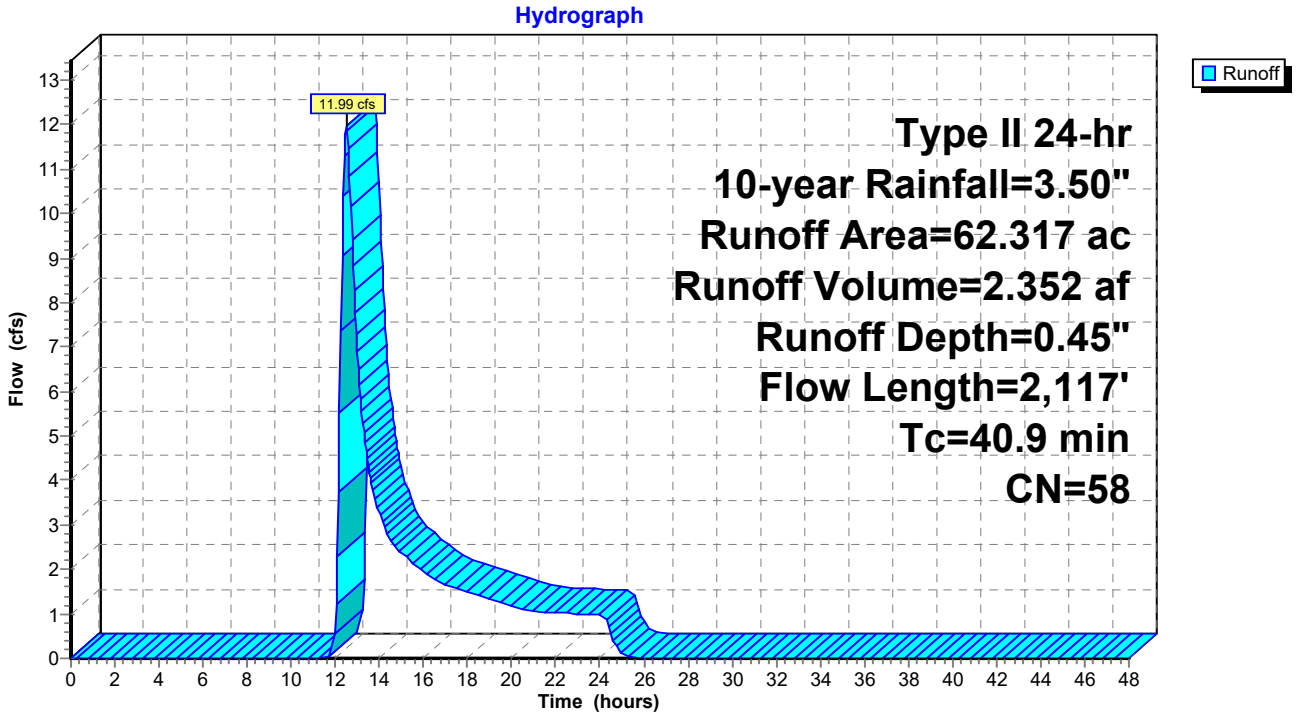
Runoff = 11.99 cfs @ 12.50 hrs, Volume= 2.352 af, Depth= 0.45"
Routed to Link SP7 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
46.288	58	Meadow, non-grazed, HSG B
1.123	78	Meadow, non-grazed, HSG D
12.864	55	Woods, Good, HSG B
0.323	77	Woods, Good, HSG D
0.107	74	Pasture/grassland/range, Good, HSG C
1.155	96	Gravel surface, HSG A
0.457	48	Brush, Good, HSG B
62.317	58	Weighted Average
62.317		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.8	100	0.0020	0.06		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
9.7	786	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	1,231		6.01		**Direct Entry,**
40.9	2,117	Total			

Subcatchment 7S: Sub 7



Summary for Subcatchment 8S: Sub 8

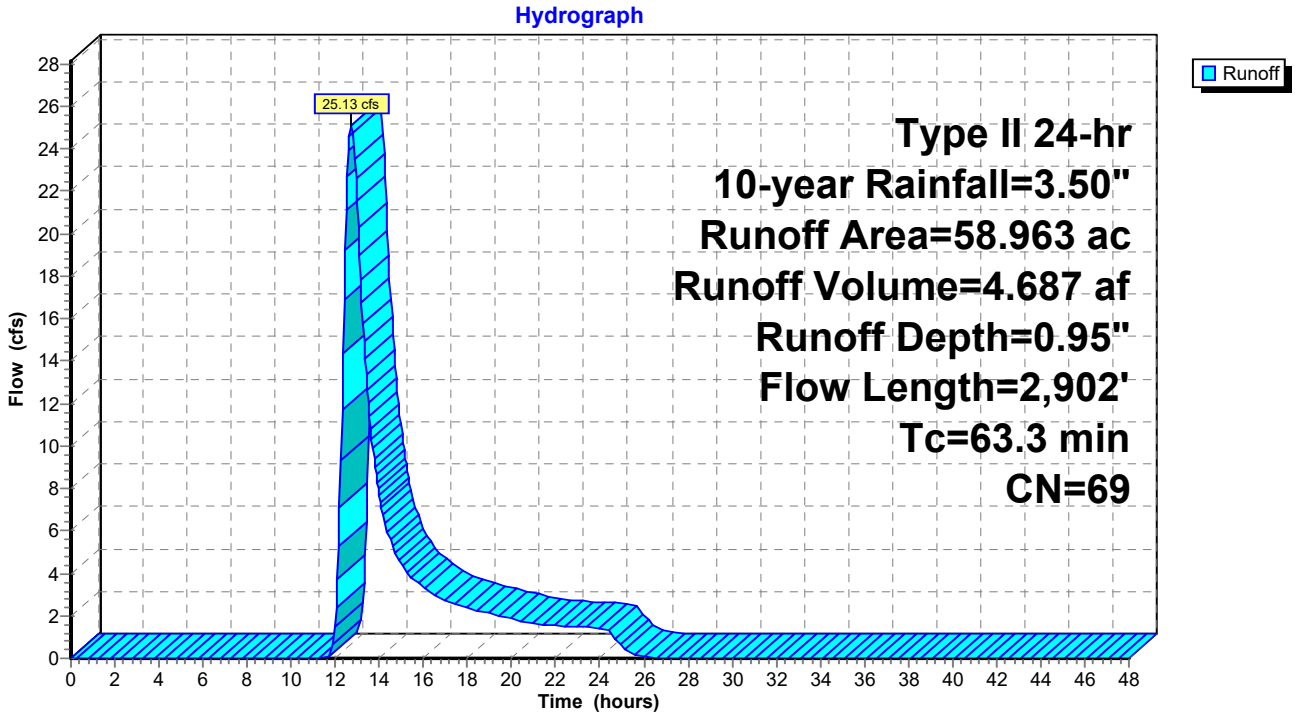
Runoff = 25.13 cfs @ 12.74 hrs, Volume= 4.687 af, Depth= 0.95"
Routed to Reach 6R : W-NSD-35

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
6.209	58	Meadow, non-grazed, HSG B
30.343	71	Meadow, non-grazed, HSG C
8.033	78	Meadow, non-grazed, HSG D
5.658	55	Woods, Good, HSG B
6.737	70	Woods, Good, HSG C
1.132	77	Woods, Good, HSG D
0.761	96	Gravel surface, HSG A
0.090	80	Pasture/grassland/range, Good, HSG D
58.963	69	Weighted Average
58.963		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.7	100	0.0030	0.07		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.6	315	0.0130	0.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
23.1	727	0.0110	0.52		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.9	1,760		2.97		**Direct Entry, CF**
63.3	2,902	Total			

Subcatchment 8S: Sub 8



Summary for Subcatchment 9.1S: Sub 9.1

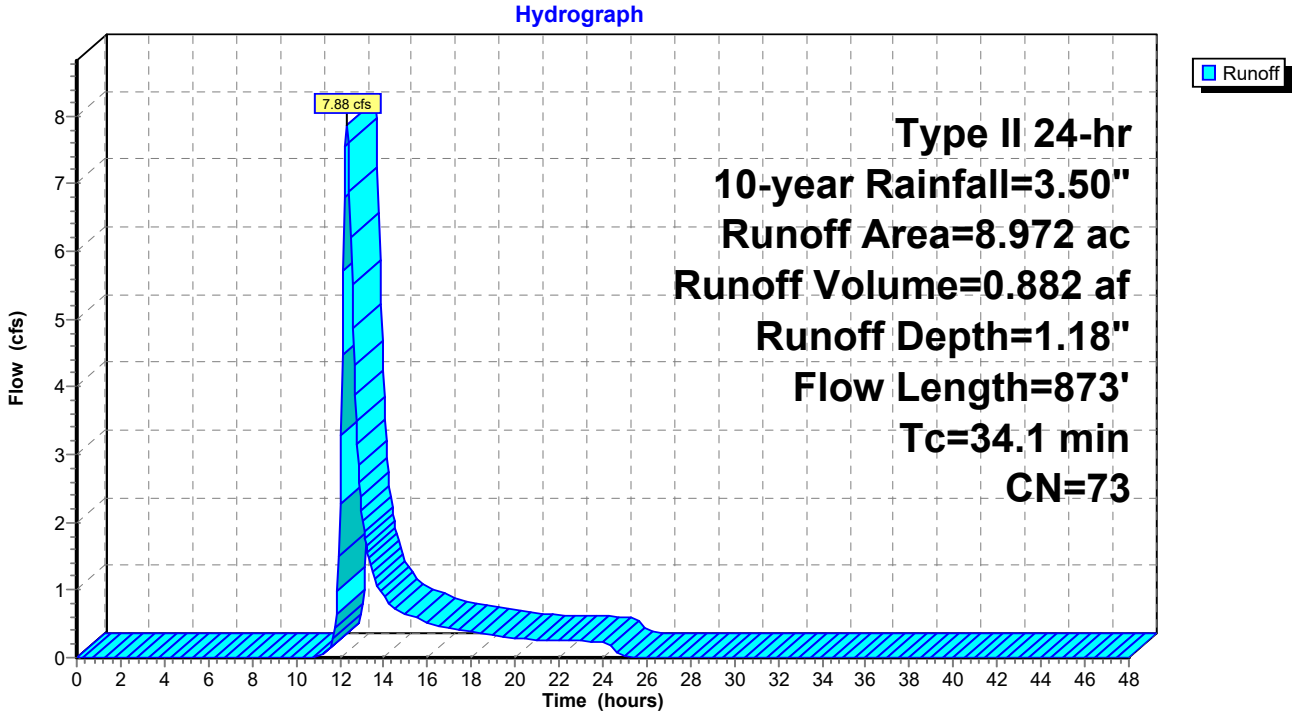
Runoff = 7.88 cfs @ 12.32 hrs, Volume= 0.882 af, Depth= 1.18"
Routed to Pond 9.1P : 9.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
1.619	78	Meadow, non-grazed, HSG D
0.528	65	Brush, Good, HSG C
4.896	71	Meadow, non-grazed, HSG C
1.929	74	>75% Grass cover, Good, HSG C
8.972	73	Weighted Average
8.972		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.0040	0.08		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
13.0	773	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
34.1	873	Total			

Subcatchment 9.1S: Sub 9.1



Summary for Subcatchment 9S: Sub 9

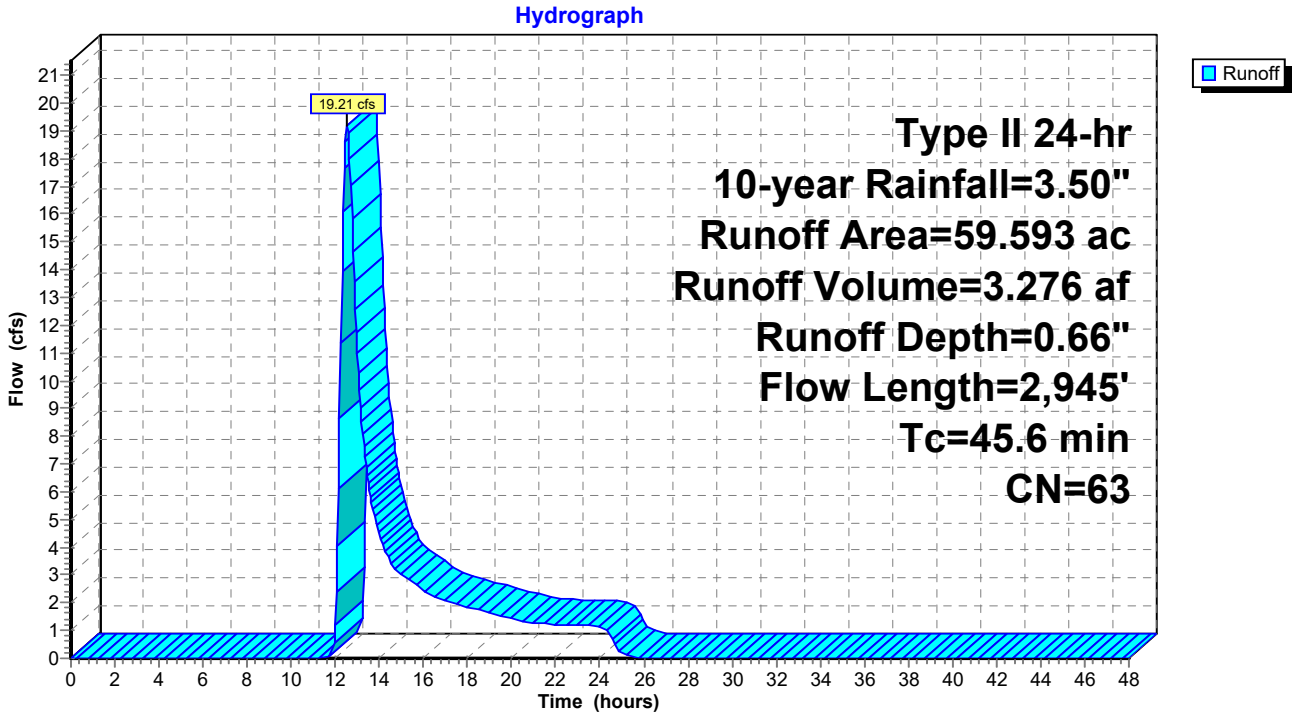
Runoff = 19.21 cfs @ 12.52 hrs, Volume= 3.276 af, Depth= 0.66"
Routed to Link SP9 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
2.871	48	Brush, Good, HSG B
0.293	65	Brush, Good, HSG C
0.014	73	Brush, Good, HSG D
3.530	96	Gravel surface, HSG D
0.332	98	Unconnected roofs, HSG D
23.963	58	Meadow, non-grazed, HSG B
2.179	71	Meadow, non-grazed, HSG C
0.495	78	Meadow, non-grazed, HSG D
6.553	61	>75% Grass cover, Good, HSG B
6.501	74	>75% Grass cover, Good, HSG C
0.430	98	Water Surface, HSG D
10.852	55	Woods, Good, HSG B
1.580	70	Woods, Good, HSG C
59.593	63	Weighted Average
58.831		98.72% Pervious Area
0.762		1.28% Impervious Area
0.332		43.57% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0060	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
13.8	841	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.9	1,254	0.0750	1.92		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.6	156		1.63		**Direct Entry,**
1.4	594		7.07		**Direct Entry,**
45.6	2,945	Total			

Subcatchment 9S: Sub 9



Summary for Subcatchment 10.1S: Sub 10.1

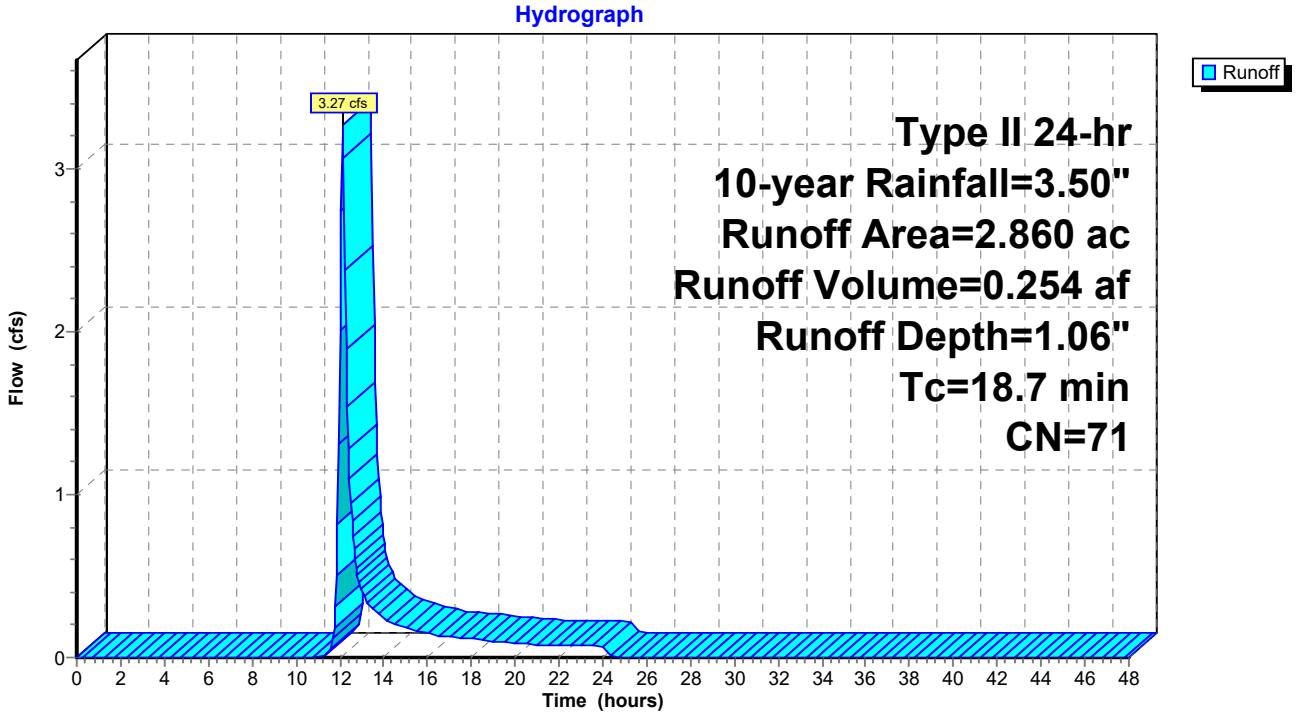
Runoff = 3.27 cfs @ 12.13 hrs, Volume= 0.254 af, Depth= 1.06"
Routed to Pond 10.1P : 10.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.026	61	>75% Grass cover, Good, HSG B
0.781	74	>75% Grass cover, Good, HSG C
0.447	80	>75% Grass cover, Good, HSG D
0.524	58	Meadow, non-grazed, HSG B
1.054	71	Meadow, non-grazed, HSG C
0.028	65	Brush, Good, HSG C
2.860	71	Weighted Average
2.860		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.7					**Direct Entry, Direct**

Subcatchment 10.1S: Sub 10.1



Summary for Subcatchment 10S: Sub 10

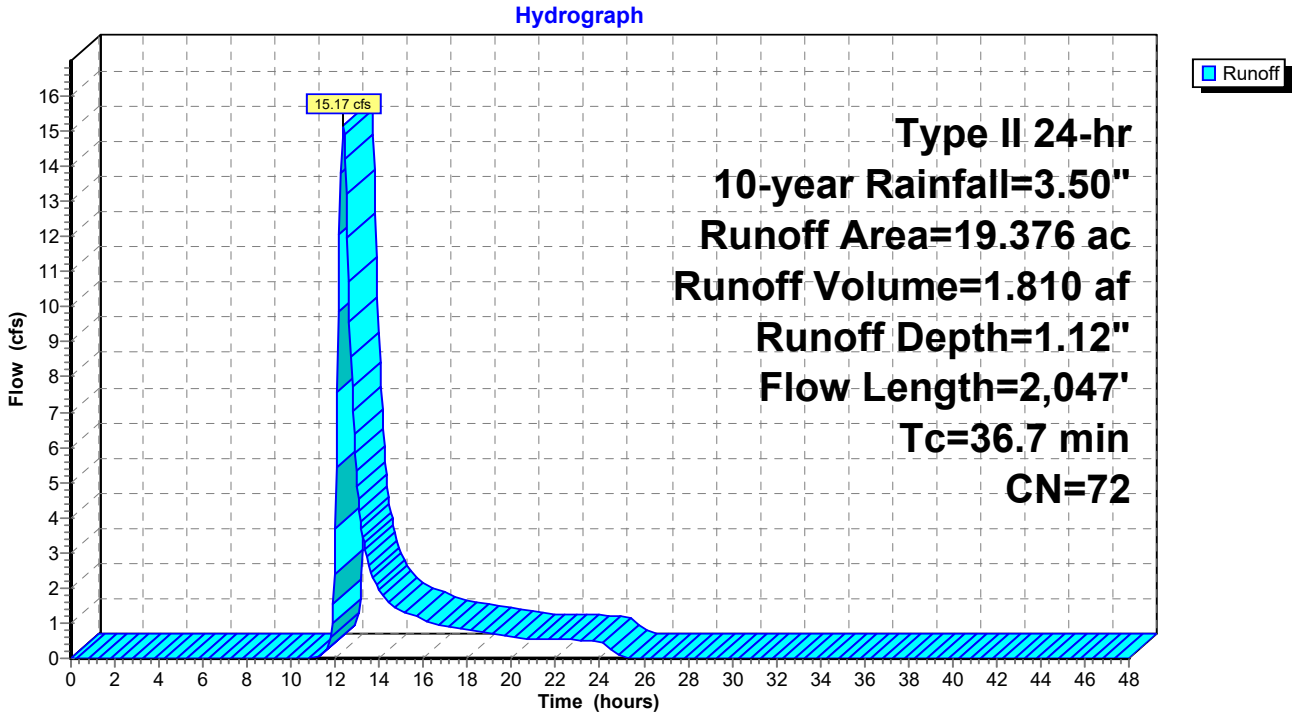
Runoff = 15.17 cfs @ 12.35 hrs, Volume= 1.810 af, Depth= 1.12"
Routed to Link SP10 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
1.008	98	Water Surface, HSG D
0.081	98	Unconnected roofs, HSG D
0.828	96	Gravel surface, HSG D
0.200	48	Brush, Good, HSG B
1.752	65	Brush, Good, HSG C
2.996	73	Brush, Good, HSG D
0.403	58	Meadow, non-grazed, HSG B
1.089	71	Meadow, non-grazed, HSG C
4.486	61	>75% Grass cover, Good, HSG B
2.211	74	>75% Grass cover, Good, HSG C
3.204	80	>75% Grass cover, Good, HSG D
0.917	55	Woods, Good, HSG B
0.044	70	Woods, Good, HSG C
0.157	77	Woods, Good, HSG D
19.376	72	Weighted Average
18.287		94.38% Pervious Area
1.089		5.62% Impervious Area
0.081		7.44% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0210	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
22.7	1,347	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.1	600		3.18		**Direct Entry, CF**
36.7	2,047	Total			

Subcatchment 10S: Sub 10



Summary for Subcatchment 11S: Sub 11

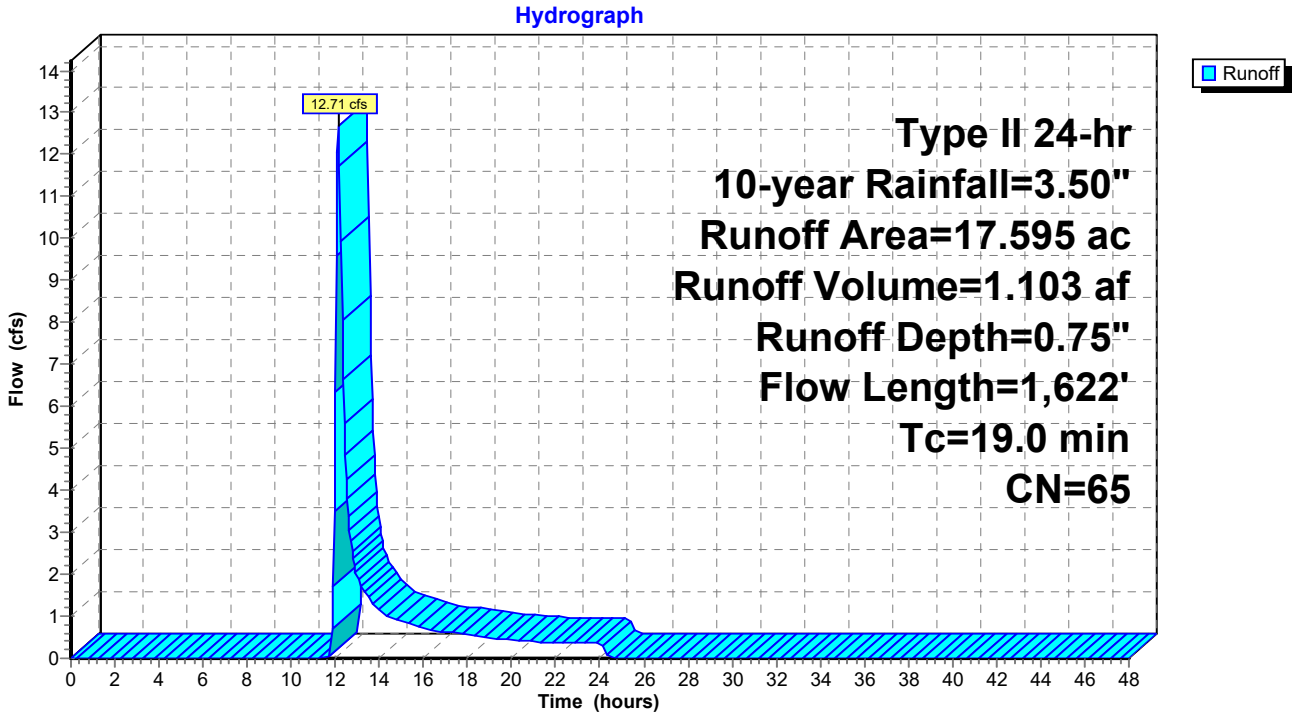
Runoff = 12.71 cfs @ 12.15 hrs, Volume= 1.103 af, Depth= 0.75"
Routed to Link SP11 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.199	48	Brush, Good, HSG B
0.091	65	Brush, Good, HSG C
1.969	96	Gravel surface, HSG D
0.091	98	Unconnected roofs, HSG D
2.133	58	Meadow, non-grazed, HSG B
1.351	71	Meadow, non-grazed, HSG C
2.660	61	>75% Grass cover, Good, HSG B
1.151	74	>75% Grass cover, Good, HSG C
0.372	98	Water Surface, HSG D
7.243	55	Woods, Good, HSG B
0.335	70	Woods, Good, HSG C
17.595	65	Weighted Average
17.132		97.37% Pervious Area
0.463		2.63% Impervious Area
0.091		19.65% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.0320	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.9	579	0.0240	2.49		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.6	277	0.0620	1.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.7	102	0.2670	2.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.6	564		3.62		**Direct Entry, CF**
19.0	1,622	Total			

Subcatchment 11S: Sub 11



Summary for Subcatchment 12S: Sub 12

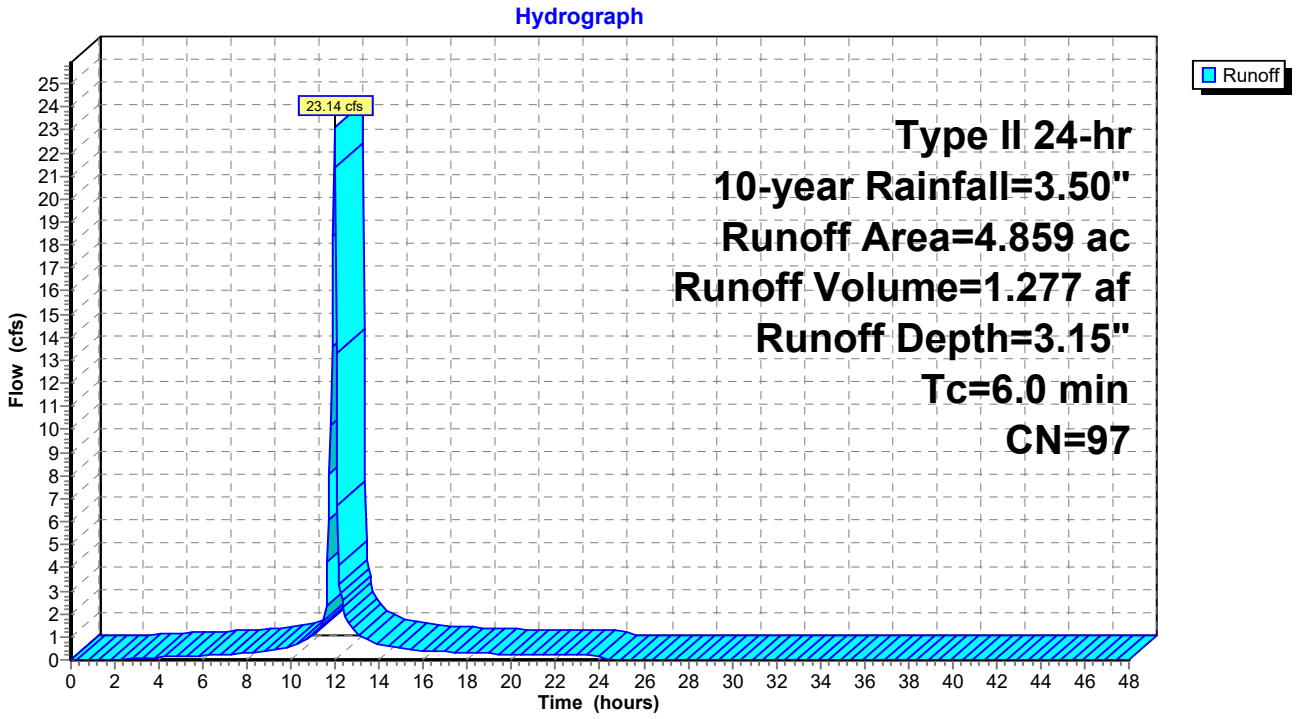
Runoff = 23.14 cfs @ 11.96 hrs, Volume= 1.277 af, Depth= 3.15"
Routed to Pond 12P : 12P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.038	98	Unconnected pavement, HSG D
2.251	96	Gravel surface, HSG D
2.570	98	Water Surface, HSG D
4.859	97	Weighted Average
2.251		46.33% Pervious Area
2.608		53.67% Impervious Area
0.038		1.46% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, minimum**

Subcatchment 12S: Sub 12



Summary for Subcatchment 13S: Sub 13

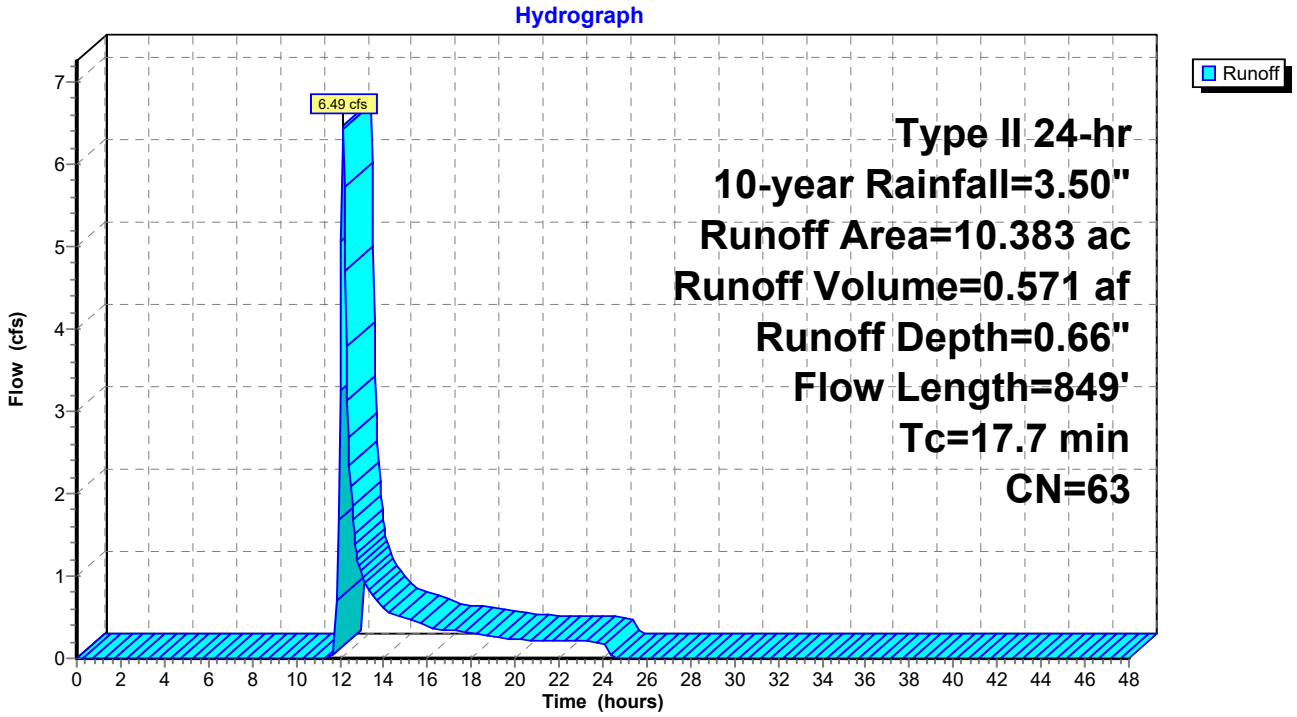
Runoff = 6.49 cfs @ 12.13 hrs, Volume= 0.571 af, Depth= 0.66"
Routed to Link SP13 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.019	98	Unconnected pavement, HSG D
0.120	96	Gravel surface, HSG D
1.784	58	Meadow, non-grazed, HSG B
4.488	71	Meadow, non-grazed, HSG C
3.647	55	Woods, Good, HSG B
0.325	70	Woods, Good, HSG C
10.383	63	Weighted Average
10.364		99.82% Pervious Area
0.019		0.18% Impervious Area
0.019		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0250	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.4	526	0.0540	1.63		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.7	62	0.0970	1.56		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	161	0.1330	1.82		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.7	849	Total			

Subcatchment 13S: Sub 13



Summary for Subcatchment 14S: Sub 14

[47] Hint: Peak is 174% of capacity of segment #4
[47] Hint: Peak is 411% of capacity of segment #5

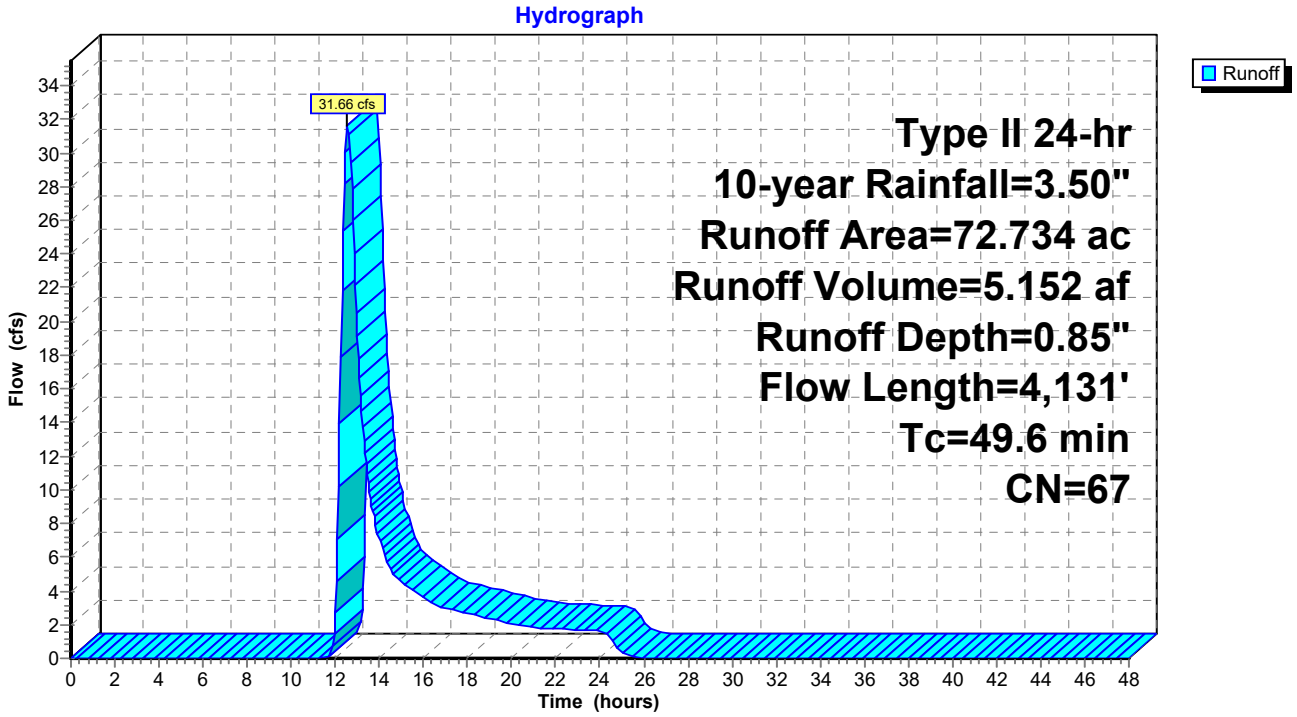
Runoff = 31.66 cfs @ 12.56 hrs, Volume= 5.152 af, Depth= 0.85"
Routed to Link SP14 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.667	48	Brush, Good, HSG B
0.121	65	Brush, Good, HSG C
1.517	73	Brush, Good, HSG D
0.307	98	Unconnected roofs, HSG D
19.939	58	Meadow, non-grazed, HSG B
36.007	71	Meadow, non-grazed, HSG C
0.100	78	Meadow, non-grazed, HSG D
0.760	80	>75% Grass cover, Good, HSG D
3.148	55	Woods, Good, HSG B
9.611	70	Woods, Good, HSG C
0.557	77	Woods, Good, HSG D
72.734	67	Weighted Average
72.427		99.58% Pervious Area
0.307		0.42% Impervious Area
0.307		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	50	0.0600	0.09		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
5.6	50	0.0280	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.7	465	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	1,433	0.0120	2.43	18.23	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=0.50' Z= 20.0 '/' Top.W=25.00' n= 0.030 Earth, grassed & winding
18.5	2,133	0.0080	1.93	7.70	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=0.50' Z= 6.0 '/' Top.W=11.00' n= 0.035 Earth, dense weeds
49.6	4,131	Total			

Subcatchment 14S: Sub 14



Summary for Subcatchment 17S: Sub 17

[47] Hint: Peak is 405% of capacity of segment #4

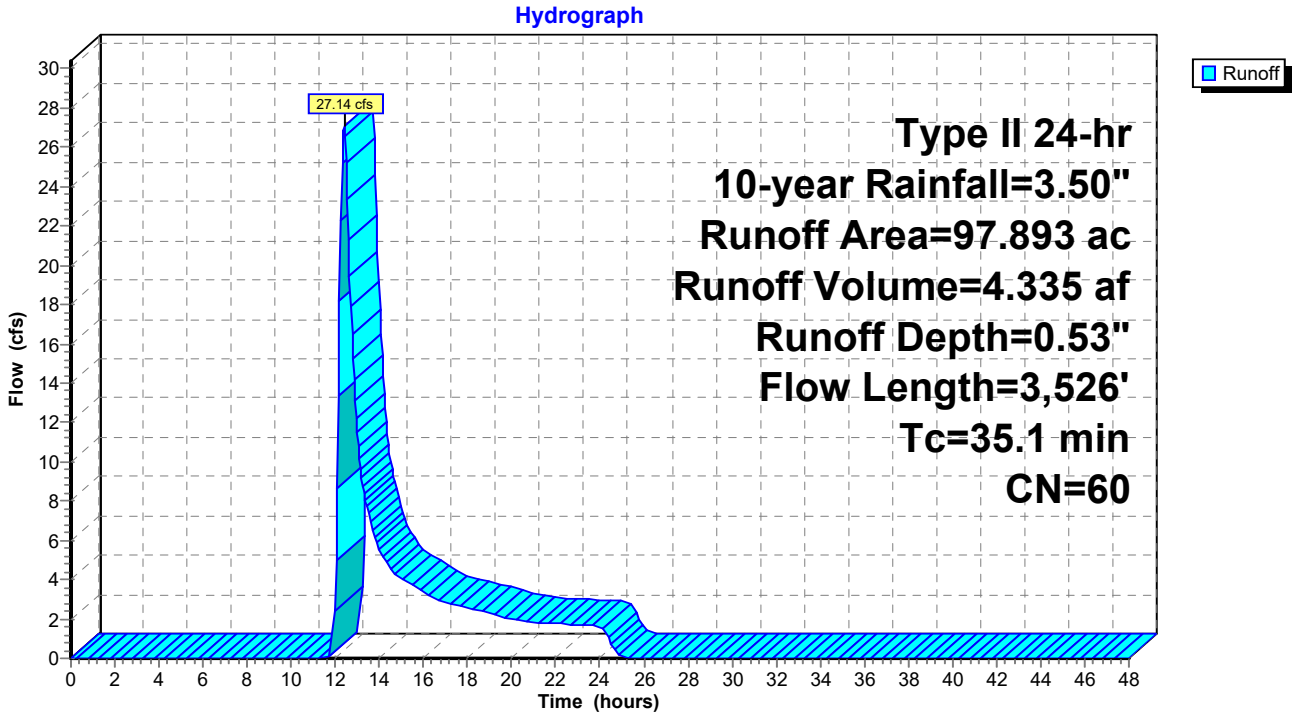
Runoff = 27.14 cfs @ 12.39 hrs, Volume= 4.335 af, Depth= 0.53"
Routed to Link SP17 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
1.139	96	Gravel surface, HSG D
1.153	98	Unconnected roofs, HSG D
77.902	58	Meadow, non-grazed, HSG B
0.464	71	Meadow, non-grazed, HSG C
4.651	78	Meadow, non-grazed, HSG D
3.000	61	>75% Grass cover, Good, HSG B
0.324	74	>75% Grass cover, Good, HSG C
1.232	80	>75% Grass cover, Good, HSG D
6.615	55	Woods, Good, HSG B
0.085	70	Woods, Good, HSG C
1.328	77	Woods, Good, HSG D
97.893	60	Weighted Average
96.740		98.82% Pervious Area
1.153		1.18% Impervious Area
1.153		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.2	681	0.0990	2.20		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.3	1,098	0.0650	1.78		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.2	1,647	0.0140	2.68	6.70	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 6.0 '/' Top.W=8.00' n= 0.030 Earth, grassed & winding
35.1	3,526	Total			

Subcatchment 17S: Sub 17



Summary for Subcatchment 18S: Sub 18

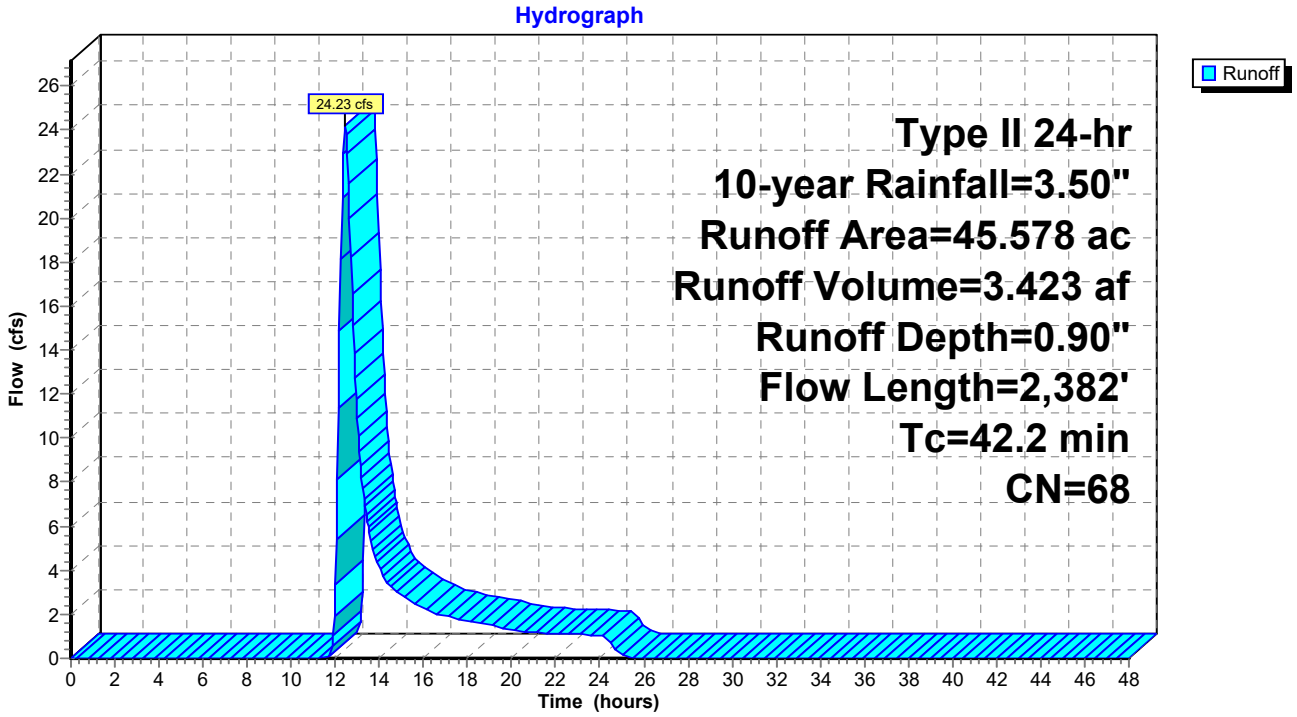
Runoff = 24.23 cfs @ 12.45 hrs, Volume= 3.423 af, Depth= 0.90"
Routed to Link SP18 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	3.098	48	Brush, Good, HSG B
	3.970	73	Brush, Good, HSG D
*	0.335	98	Pavement
	10.712	58	Meadow, non-grazed, HSG B
	19.406	71	Meadow, non-grazed, HSG C
	7.856	78	Meadow, non-grazed, HSG D
	0.101	77	Woods, Good, HSG D
*	0.100	96	Gravel road
	45.578	68	Weighted Average
	45.243		99.26% Pervious Area
	0.335		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	100	0.0180	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.5	668	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.5	459	0.0590	1.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	128	0.0130	0.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.9	1,027		1.33		**Direct Entry, CF**
42.2	2,382	Total			

Subcatchment 18S: Sub 18



Summary for Subcatchment 19S: Sub 19

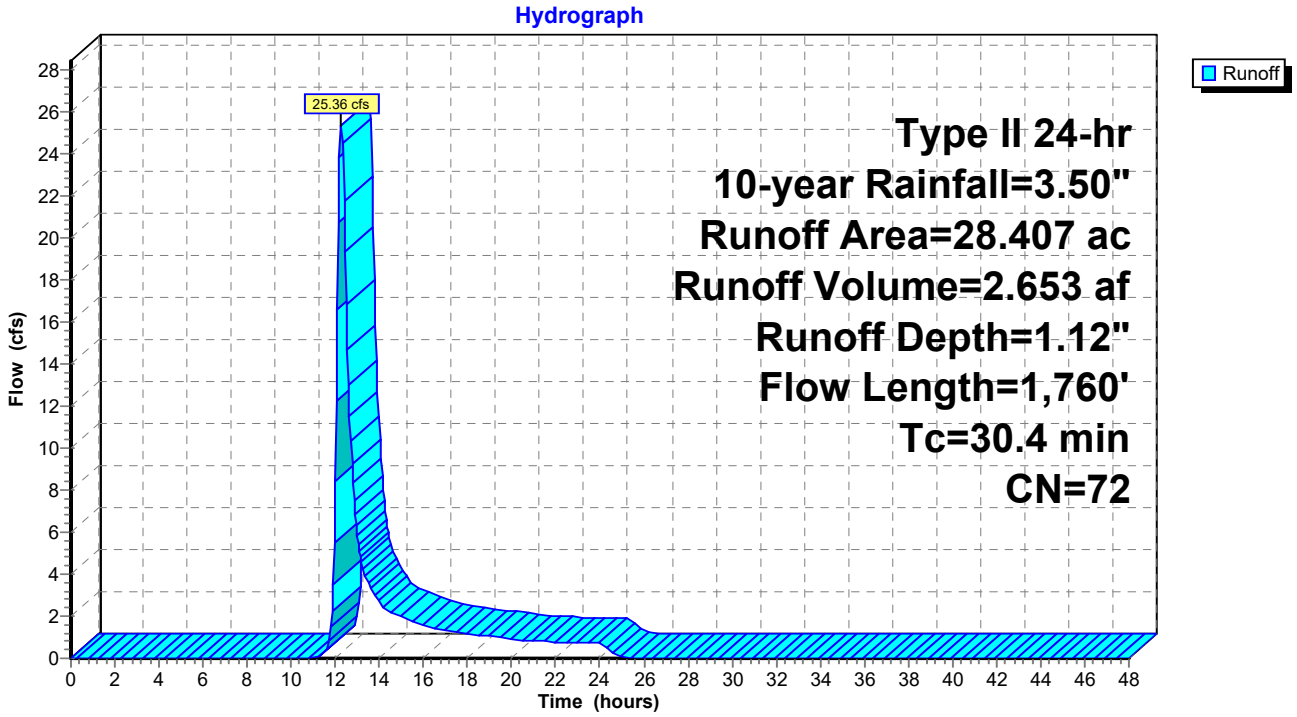
Runoff = 25.36 cfs @ 12.27 hrs, Volume= 2.653 af, Depth= 1.12"
Routed to Reach 20.1R : S-KCF-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.227	65	Brush, Good, HSG C
0.105	73	Brush, Good, HSG D
2.120	58	Meadow, non-grazed, HSG B
17.999	71	Meadow, non-grazed, HSG C
7.141	78	Meadow, non-grazed, HSG D
0.153	98	Water Surface, HSG D
0.125	77	Woods, Good, HSG D
0.537	96	Gravel surface, HSG D
28.407	72	Weighted Average
28.254		99.46% Pervious Area
0.153		0.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0430	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.5	212	0.1120	2.34		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.0	635	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.7	813	0.0330	1.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
30.4	1,760	Total			

Subcatchment 19S: Sub 19



Summary for Subcatchment 20S: Sub 20

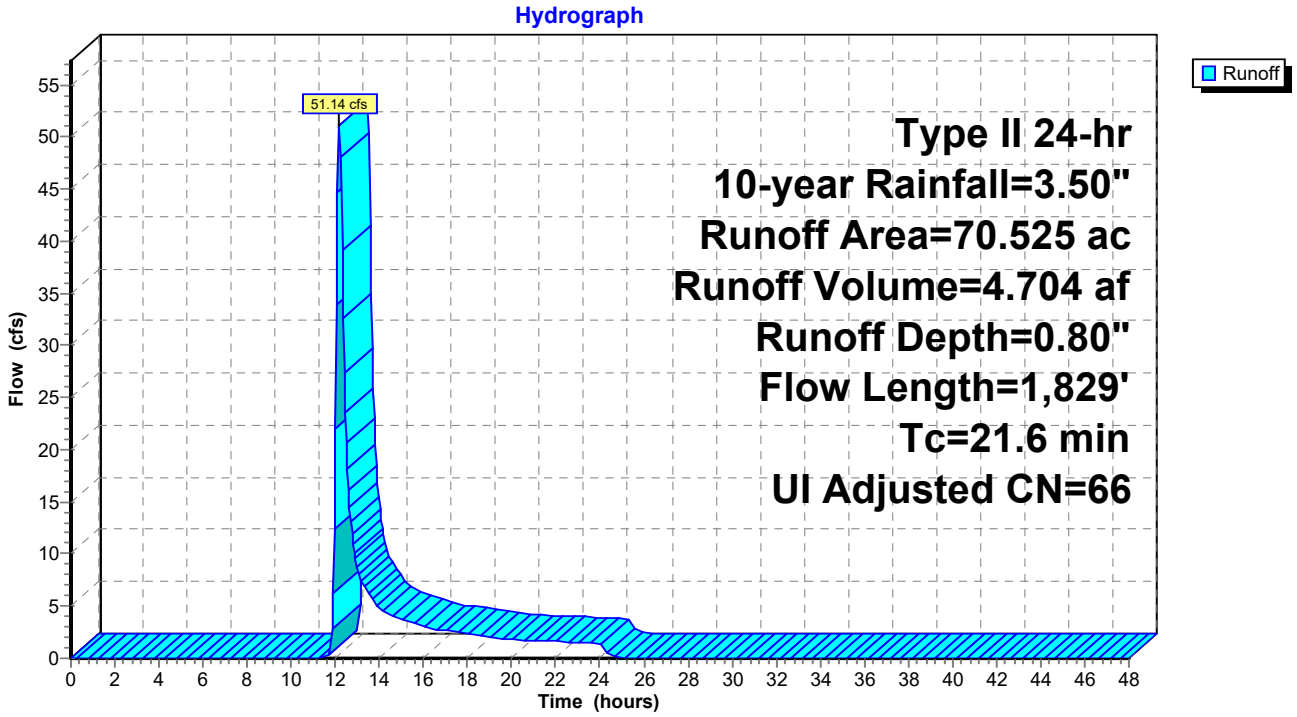
Runoff = 51.14 cfs @ 12.17 hrs, Volume= 4.704 af, Depth= 0.80"
Routed to Reach 20.1R : S-KCF-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Adj	Description
0.508	98		Unconnected roofs, HSG D
29.509	58		Meadow, non-grazed, HSG B
23.016	71		Meadow, non-grazed, HSG C
12.457	78		Meadow, non-grazed, HSG D
3.657	61		>75% Grass cover, Good, HSG B
0.124	55		Woods, Good, HSG B
0.222	70		Woods, Good, HSG C
0.015	77		Woods, Good, HSG D
0.044	98		Water Surface, HSG D
0.274	48		Brush, Good, HSG B
0.054	65		Brush, Good, HSG C
0.133	73		Brush, Good, HSG D
0.512	96		Gravel surface, HSG D
70.525	67	66	Weighted Average, UI Adjusted
69.973			99.22% Pervious Area
0.552			0.78% Impervious Area
0.508			92.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.6	259	0.0580	1.69		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.8	703	0.0360	1.33		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	767		3.65		**Direct Entry, CF**
21.6	1,829	Total			

Subcatchment 20S: Sub 20



Summary for Subcatchment 21S: Sub 21

[47] Hint: Peak is 444% of capacity of segment #3
[47] Hint: Peak is 396% of capacity of segment #4
[47] Hint: Peak is 463% of capacity of segment #5

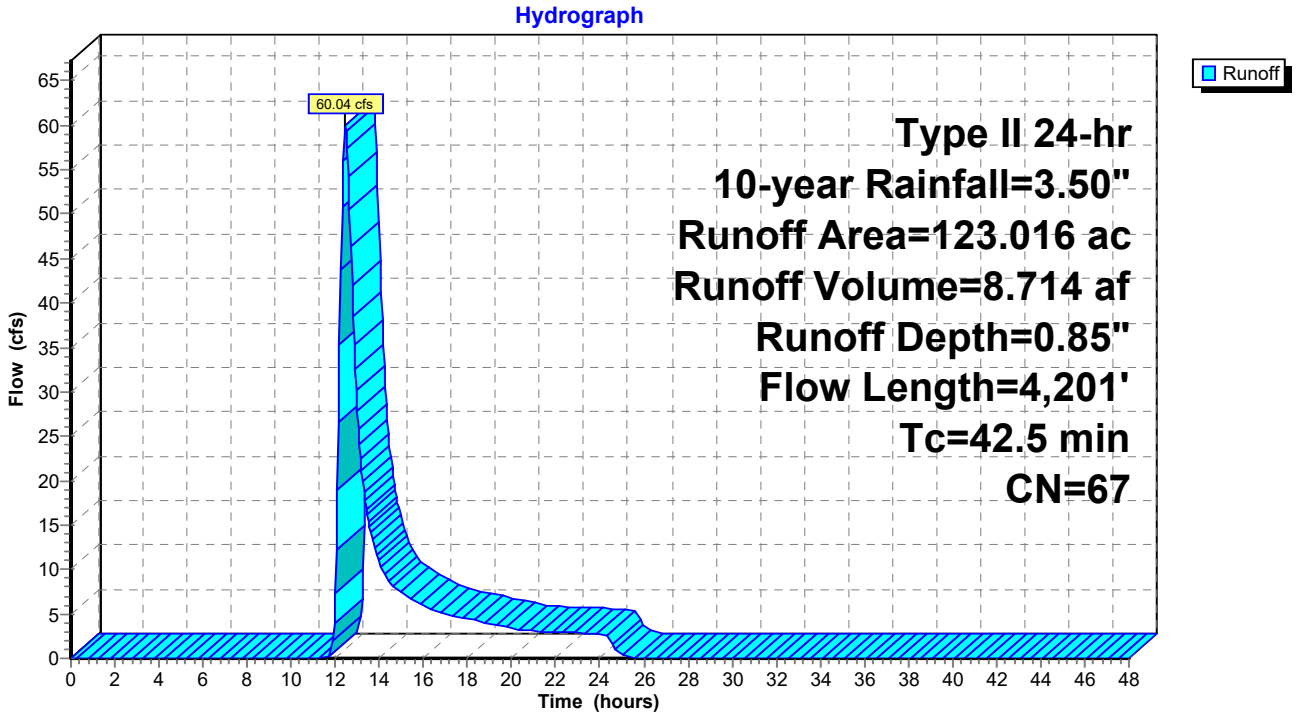
Runoff = 60.04 cfs @ 12.45 hrs, Volume= 8.714 af, Depth= 0.85"
Routed to Reach 22.1R : S-KCF-5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
2.223	96	Gravel surface, HSG D
0.950	98	Unconnected roofs, HSG D
50.366	58	Meadow, non-grazed, HSG B
57.844	71	Meadow, non-grazed, HSG C
3.445	78	Meadow, non-grazed, HSG D
3.145	98	Water Surface, HSG D
0.555	55	Woods, Good, HSG B
1.125	70	Woods, Good, HSG C
0.616	61	>75% Grass cover, Good, HSG B
1.689	74	>75% Grass cover, Good, HSG C
0.714	48	Brush, Good, HSG B
0.344	65	Brush, Good, HSG C
123.016	67	Weighted Average
118.921		96.67% Pervious Area
4.095		3.33% Impervious Area
0.950		23.20% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0160	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
12.6	1,112	0.0440	1.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	346	0.0150	2.58	13.52	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 9.0 '/' Top.W=15.00' n= 0.035 Earth, dense weeds
8.3	1,504	0.0150	3.03	15.15	**Trap/Vee/Rect Channel Flow,** Bot.W=9.00' D=0.50' Z= 2.0 '/' Top.W=11.00' n= 0.035 Earth, dense weeds
7.3	1,139	0.0110	2.60	12.98	**Trap/Vee/Rect Channel Flow,** Bot.W=9.00' D=0.50' Z= 2.0 '/' Top.W=11.00' n= 0.035 Earth, dense weeds
42.5	4,201	Total			

Subcatchment 21S: Sub 21



Summary for Subcatchment 22S: Sub 22

[47] Hint: Peak is 1905% of capacity of segment #7

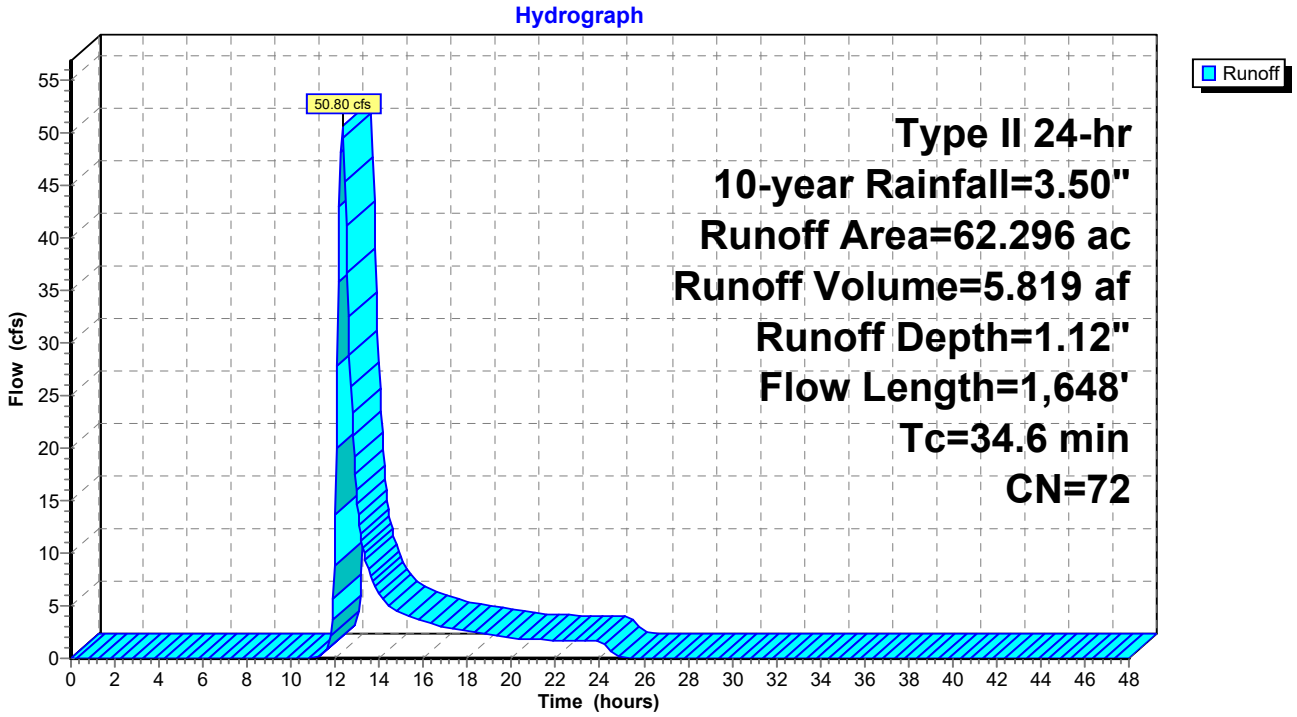
Runoff = 50.80 cfs @ 12.33 hrs, Volume= 5.819 af, Depth= 1.12"
Routed to Link SP22 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
1.623	96	Gravel surface, HSG D
4.694	58	Meadow, non-grazed, HSG B
43.712	71	Meadow, non-grazed, HSG C
9.237	78	Meadow, non-grazed, HSG D
0.118	55	Woods, Good, HSG B
0.413	70	Woods, Good, HSG C
1.693	77	Woods, Good, HSG D
0.373	98	Unconnected pavement, HSG D
0.303	48	Brush, Good, HSG B
0.130	65	Brush, Good, HSG C
62.296	72	Weighted Average
61.923		99.40% Pervious Area
0.373		0.60% Impervious Area
0.373		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.1	303	0.0260	2.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
3.1	240	0.0330	1.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.6	256	0.0120	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.6	78	0.0250	0.79		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
11.3	515	0.0230	0.76		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	156	0.0070	1.78	2.67	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
34.6	1,648	Total			

Subcatchment 22S: Sub 22



Summary for Subcatchment 23.1: Sub 23.1

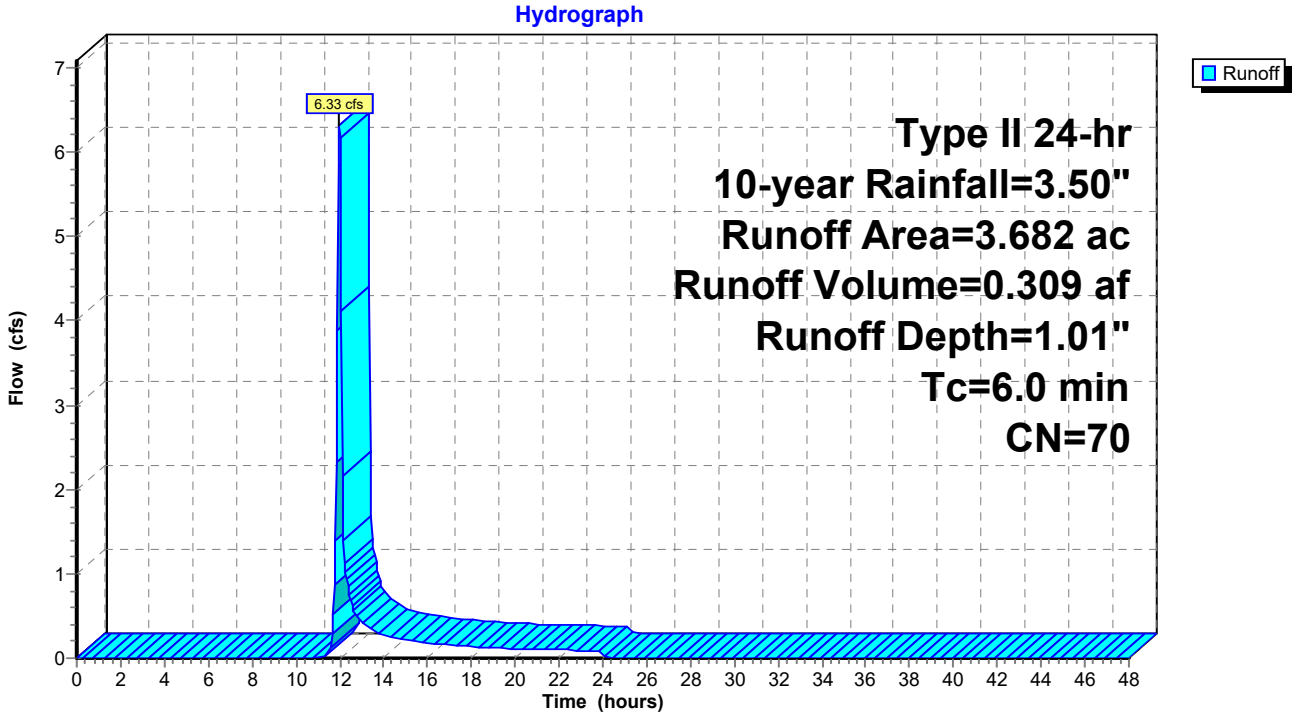
Runoff = 6.33 cfs @ 11.98 hrs, Volume= 0.309 af, Depth= 1.01"
Routed to Pond 23.1P : 23.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
*	0.928	96	Gravel
	2.257	58	Meadow, non-grazed, HSG B
	0.497	78	Meadow, non-grazed, HSG D
	3.682	70	Weighted Average
	3.682		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 23.1: Sub 23.1



Summary for Subcatchment 23S: Sub 23

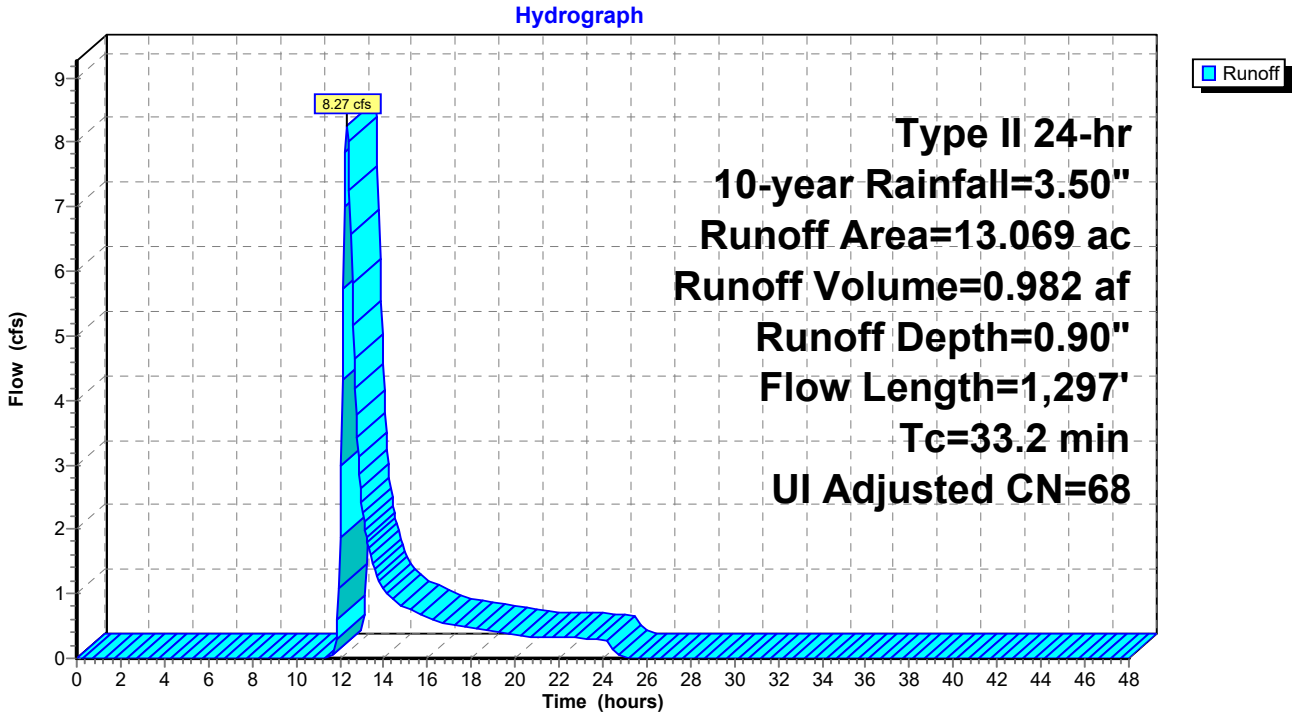
Runoff = 8.27 cfs @ 12.32 hrs, Volume= 0.982 af, Depth= 0.90"
Routed to Link SP23 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Adj	Description
0.012	48		Brush, Good, HSG B
0.040	65		Brush, Good, HSG C
0.387	98		Unconnected roofs, HSG D
2.687	58		Meadow, non-grazed, HSG B
9.525	71		Meadow, non-grazed, HSG C
0.031	55		Woods, Good, HSG B
0.387	61		>75% Grass cover, Good, HSG B
13.069	69	68	Weighted Average, UI Adjusted
12.682			97.04% Pervious Area
0.387			2.96% Impervious Area
0.387			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0760	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
15.8	892	0.0180	0.94		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	262	0.0490	1.55		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	43		1.79		**Direct Entry,**
33.2	1,297	Total			

Subcatchment 23S: Sub 23



Summary for Subcatchment 24S: Sub 24

[47] Hint: Peak is 145% of capacity of segment #3

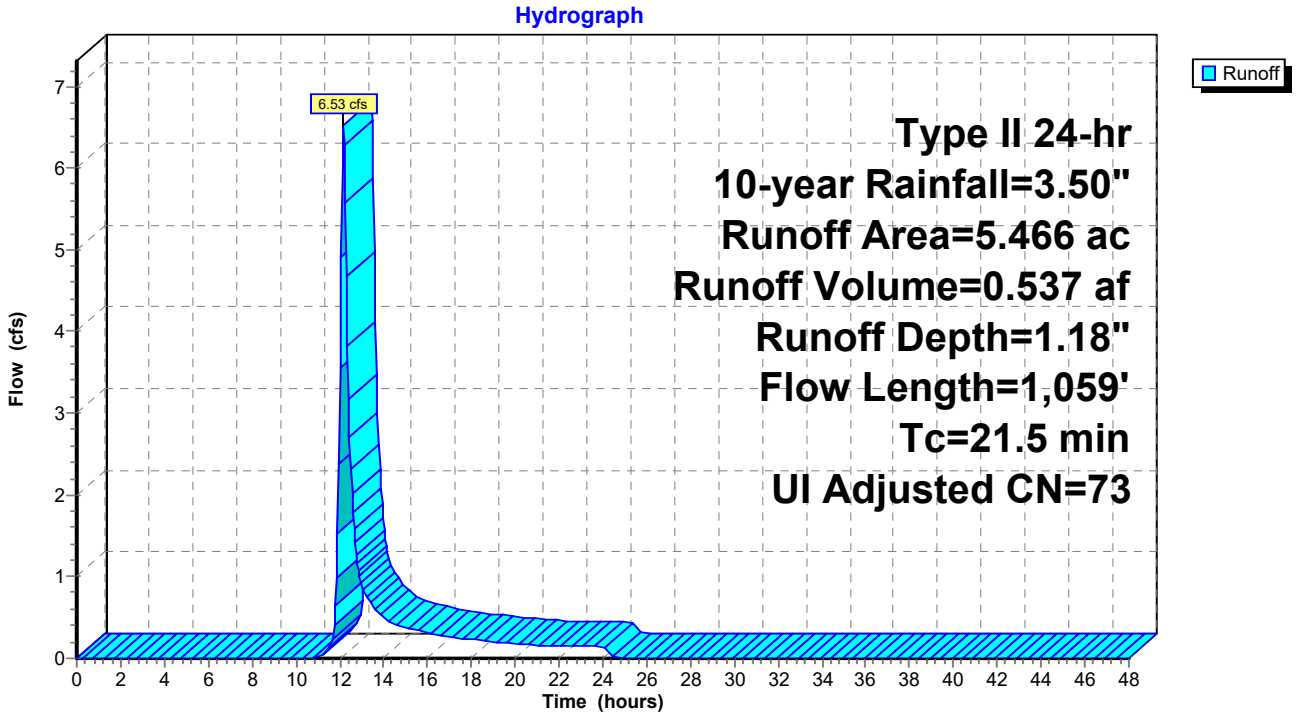
Runoff = 6.53 cfs @ 12.16 hrs, Volume= 0.537 af, Depth= 1.18"
Routed to Link SP24 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Adj	Description
0.036	96		Gravel surface, HSG D
0.421	98		Unconnected roofs, HSG D
0.252	58		Meadow, non-grazed, HSG B
2.730	71		Meadow, non-grazed, HSG C
0.093	61		>75% Grass cover, Good, HSG B
1.916	74		>75% Grass cover, Good, HSG C
0.018	70		Woods, Good, HSG C
5.466	74	73	Weighted Average, UI Adjusted
5.045			92.30% Pervious Area
0.421			7.70% Impervious Area
0.421			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0080	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.5	156	0.0610	1.73		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.6	294	0.0200	3.01	4.51	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
2.4	509	0.0220	3.47	13.02	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 3.0 '/' Top.W=9.00' n= 0.035 Earth, dense weeds
21.5	1,059	Total			

Subcatchment 24S: Sub 24



Summary for Subcatchment 43: Subcat 43

[47] Hint: Peak is 176% of capacity of segment #3

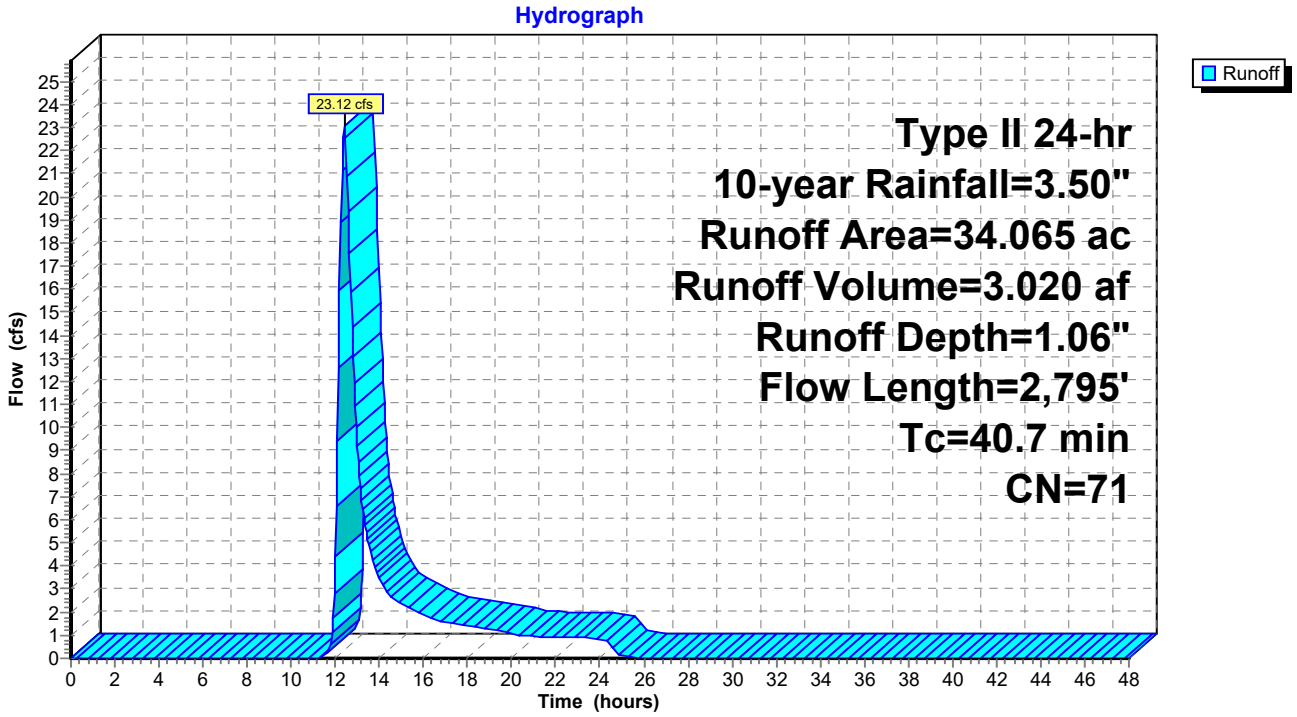
Runoff = 23.12 cfs @ 12.41 hrs, Volume= 3.020 af, Depth= 1.06"
Routed to Reach 44R :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
*	1.452	96	Gravel Impervious
	0.107	48	Brush, Good, HSG B
	0.109	65	Brush, Good, HSG C
	2.252	73	Brush, Good, HSG D
	0.186	30	Meadow, non-grazed, HSG A
	1.295	58	Meadow, non-grazed, HSG B
	17.175	71	Meadow, non-grazed, HSG C
	4.209	78	Meadow, non-grazed, HSG D
	0.092	98	Unconnected roofs, HSG C
	1.648	30	Woods, Good, HSG A
	0.349	55	Woods, Good, HSG B
	1.914	70	Woods, Good, HSG C
	3.277	77	Woods, Good, HSG D
	34.065	71	Weighted Average
	33.973		99.73% Pervious Area
	0.092		0.27% Impervious Area
	0.092		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
26.2	1,556	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.1	1,139	0.0320	3.76	13.15	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 2.0 '/' Top.W=8.00' n= 0.040 Winding stream, pools & shoals
40.7	2,795	Total			

Subcatchment 43: Subcat 43



Summary for Subcatchment 44.1S: 44.1S

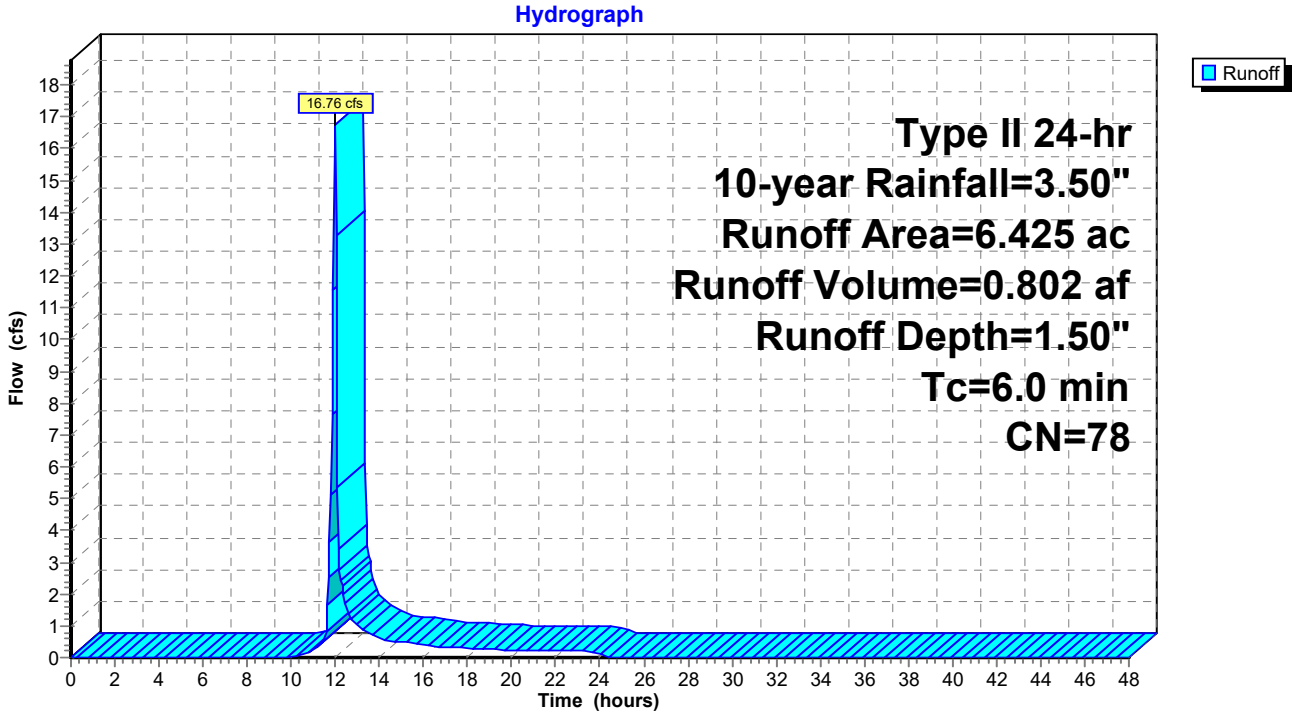
Runoff = 16.76 cfs @ 11.98 hrs, Volume= 0.802 af, Depth= 1.50"
Routed to Pond 44.1P : 44.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
*	0.766	96	Gravel
	1.461	77	Woods, Good, HSG D
	1.511	71	Meadow, non-grazed, HSG C
	2.687	78	Meadow, non-grazed, HSG D
	6.425	78	Weighted Average
	6.425		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 44.1S: 44.1S



Summary for Subcatchment 44S: 44S

[47] Hint: Peak is 447% of capacity of segment #3
[47] Hint: Peak is 173% of capacity of segment #4

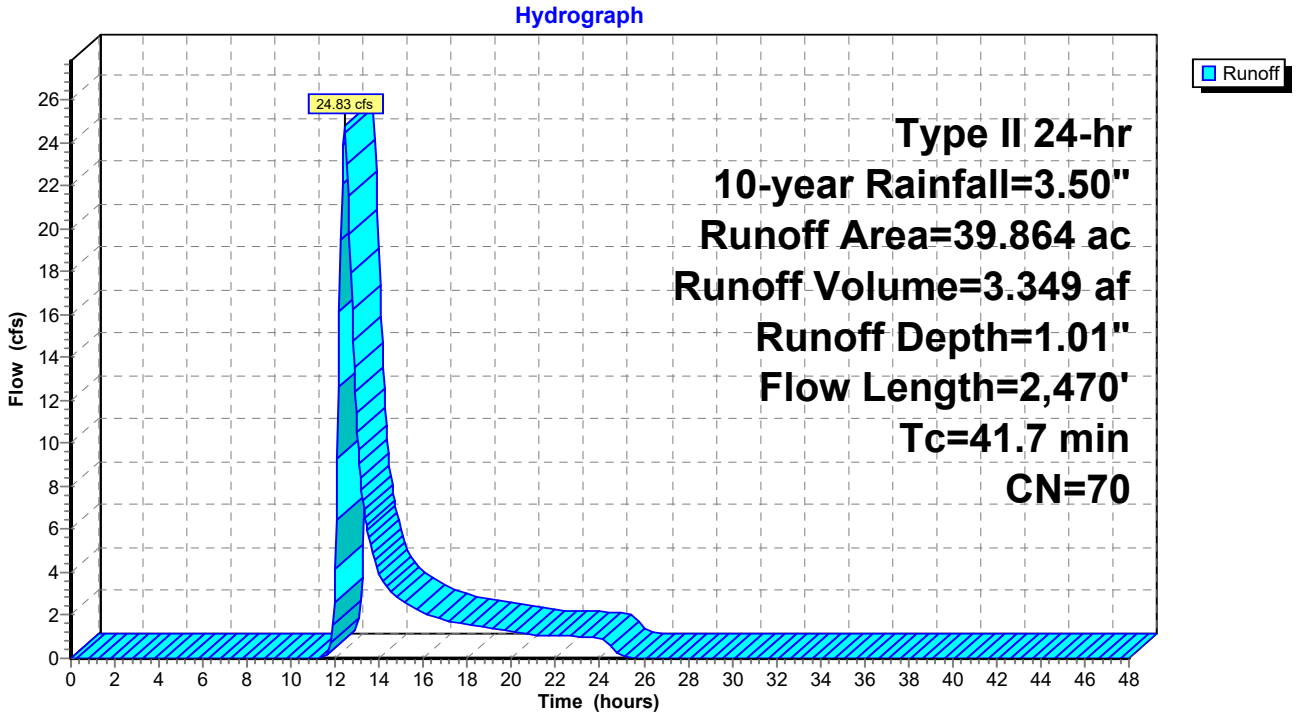
Runoff = 24.83 cfs @ 12.43 hrs, Volume= 3.349 af, Depth= 1.01"
Routed to Reach 45R :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
*	1.144	96	Gravel
	6.222	55	Woods, Good, HSG B
	7.156	70	Woods, Good, HSG C
	0.180	58	Meadow, non-grazed, HSG B
	6.882	71	Meadow, non-grazed, HSG C
	1.418	30	Woods, Good, HSG A
	0.291	30	Meadow, non-grazed, HSG A
	6.908	78	Meadow, non-grazed, HSG D
	9.663	77	Woods, Good, HSG D
	39.864	70	Weighted Average
	39.864		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.9	100	0.0260	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
9.2	409	0.0220	0.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
5.2	715	0.0320	2.31	5.55	**Parabolic Channel,** W=18.00' D=0.20' Area=2.4 sf Perim=18.0' n= 0.030 Earth, grassed & winding
5.4	1,246	0.0350	3.83	14.37	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 3.0 '/' Top.W=9.00' n= 0.040 Earth, cobble bottom, clean sides
41.7	2,470	Total			

Subcatchment 44S: 44S



Summary for Subcatchment 45: Subcat 45

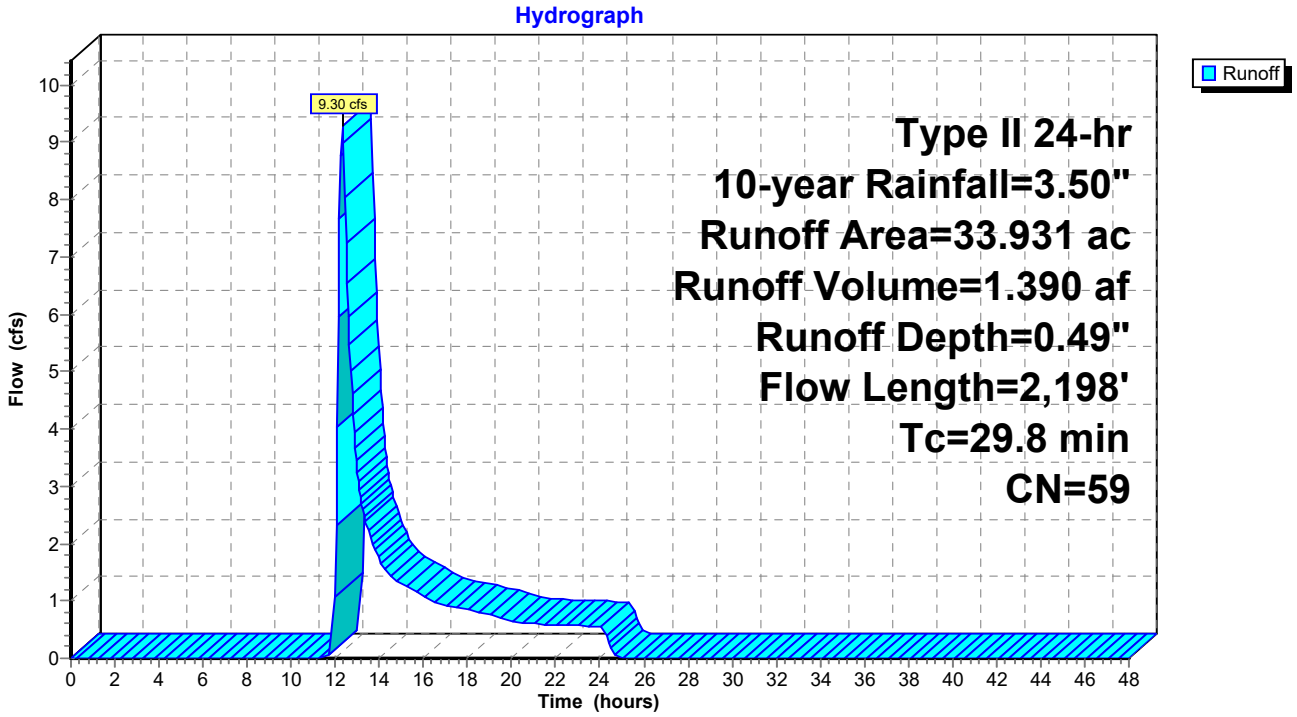
Runoff = 9.30 cfs @ 12.32 hrs, Volume= 1.390 af, Depth= 0.49"
Routed to Link SP43 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
1.898	48	Brush, Good, HSG B
0.038	65	Brush, Good, HSG C
1.297	30	Meadow, non-grazed, HSG A
13.561	58	Meadow, non-grazed, HSG B
7.566	71	Meadow, non-grazed, HSG C
3.033	78	Meadow, non-grazed, HSG D
0.074	98	Unconnected roofs, HSG C
2.408	30	Woods, Good, HSG A
3.386	55	Woods, Good, HSG B
0.357	70	Woods, Good, HSG C
0.313	77	Woods, Good, HSG D
33.931	59	Weighted Average
33.857		99.78% Pervious Area
0.074		0.22% Impervious Area
0.074		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0150	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.5	396	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	223	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	196	0.0360	0.95		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
5.7	1,283	0.0370	3.77	10.38	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=0.50' Z= 3.0 '/' Top.W=7.00' n= 0.040 Winding stream, pools & shoals
29.8	2,198	Total			

Subcatchment 45: Subcat 45



Summary for Subcatchment 46.1S: 46.1S

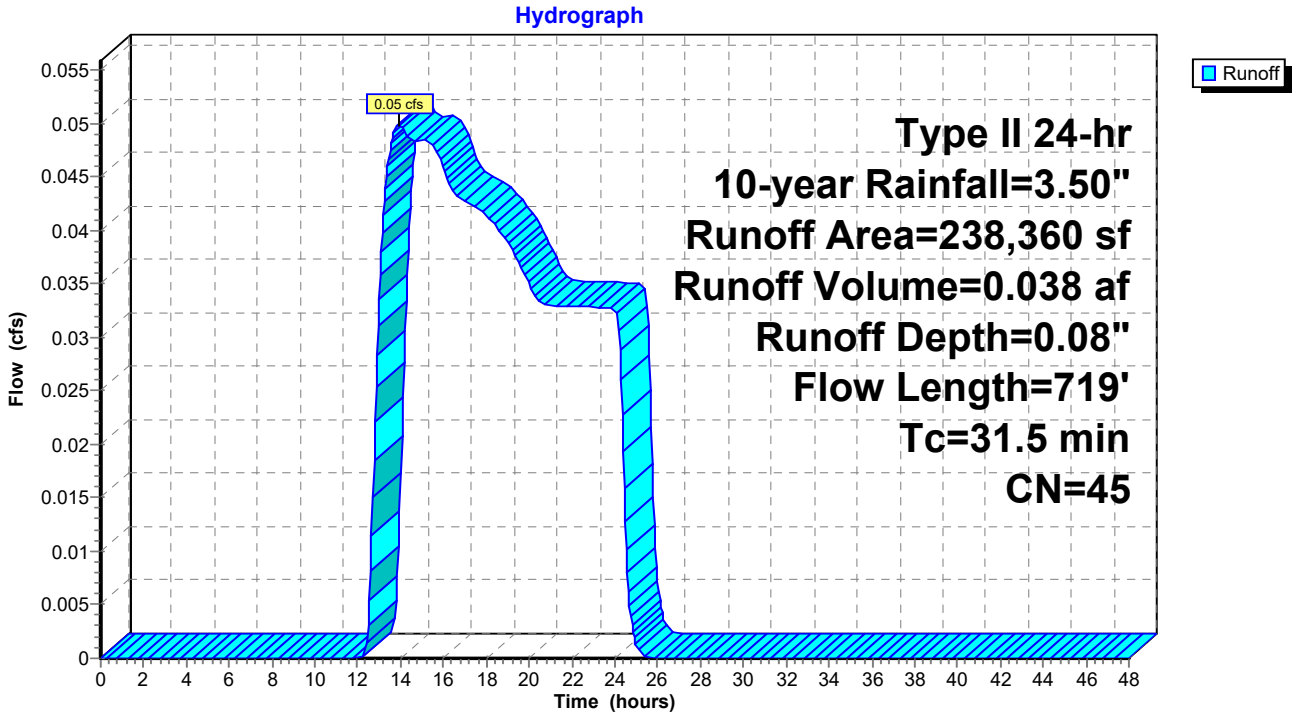
Runoff = 0.05 cfs @ 13.92 hrs, Volume= 0.038 af, Depth= 0.08"
Routed to Pond 46.1P : 46.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (sf)	CN	Description
	8,544	30	Meadow, non-grazed, HSG A
	5,734	58	Meadow, non-grazed, HSG B
	127,528	55	Woods, Good, HSG B
	5,825	30	Brush, Good, HSG A
*	3,183	96	Gravel
	87,546	30	Woods, Good, HSG A
	238,360	45	Weighted Average
	238,360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.2	100	0.0250	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
7.7	389	0.0280	0.84		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.6	230	0.2300	2.40		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	719	Total			

Subcatchment 46.1S: 46.1S



Summary for Subcatchment 46S: Subcat 46

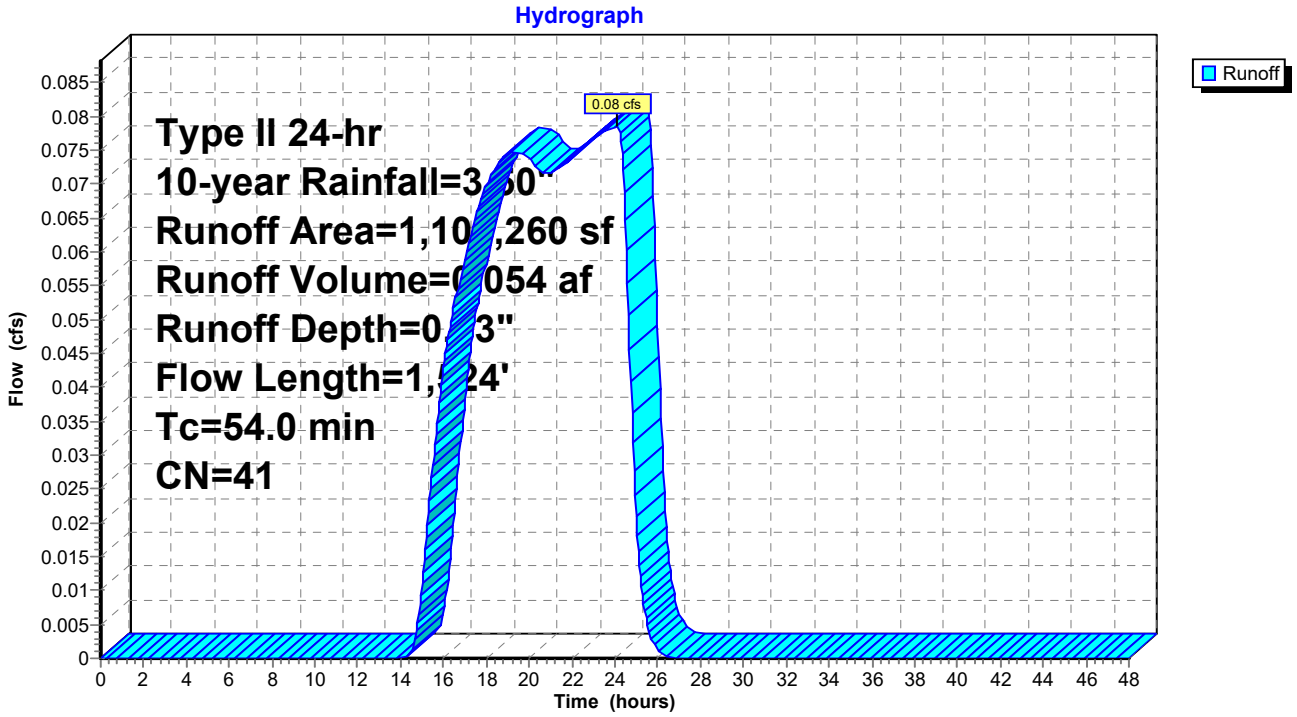
Runoff = 0.08 cfs @ 24.09 hrs, Volume= 0.054 af, Depth= 0.03"
Routed to Link SP46 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (sf)	CN	Description
	26,889	30	Brush, Good, HSG A
	7,928	48	Brush, Good, HSG B
	114,992	30	Meadow, non-grazed, HSG A
	61,059	58	Meadow, non-grazed, HSG B
	537,985	30	Woods, Good, HSG A
	282,460	55	Woods, Good, HSG B
	48,918	77	Woods, Good, HSG D
*	22,029	96	Gravel
	1,102,260	41	Weighted Average
	1,102,260		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
36.5	774	0.0050	0.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
5.2	153	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	245	0.4120	3.21		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	79	0.0510	1.13		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.4	173		6.95		**Lake or Reservoir,** Mean Depth= 1.50'
54.0	1,524	Total			

Subcatchment 46S: Subcat 46



Summary for Subcatchment 47S: Sub 47

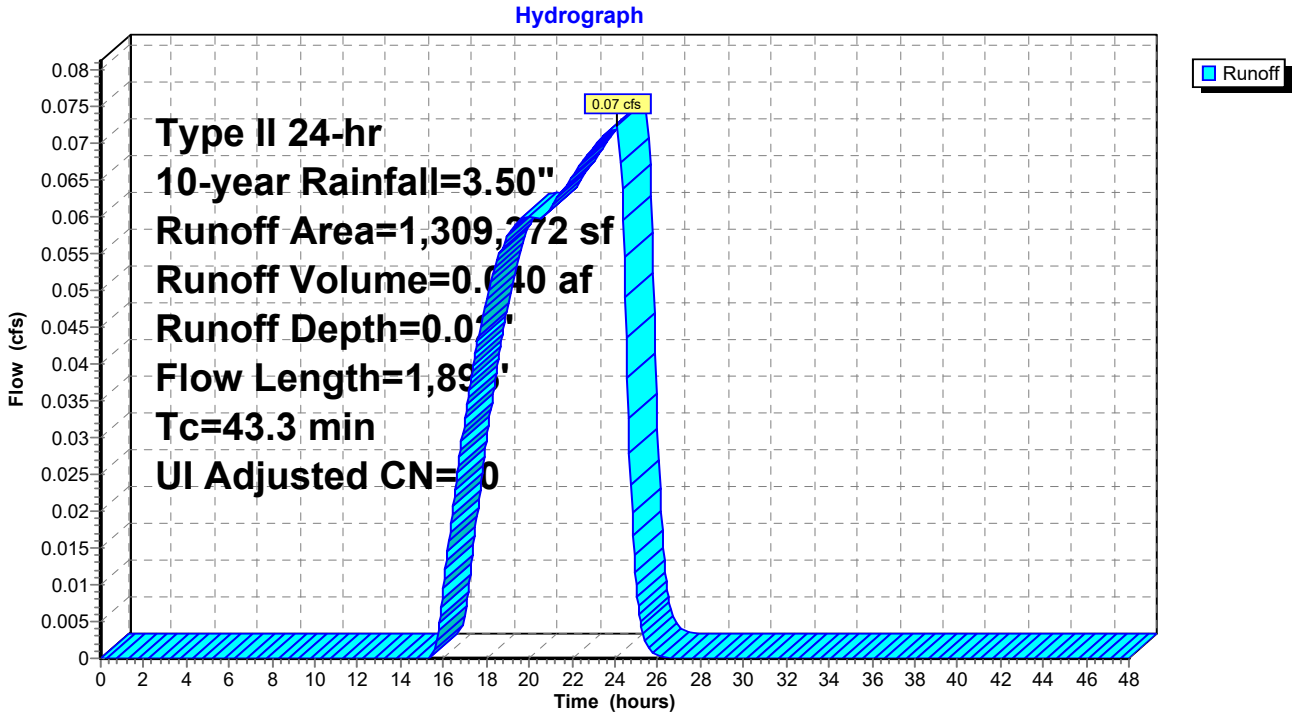
Runoff = 0.07 cfs @ 24.07 hrs, Volume= 0.040 af, Depth= 0.02"
Routed to Link SP47 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (sf)	CN	Adj	Description
16,402	98		Unconnected pavement, HSG D
18,822	96		Gravel surface, HSG D
21,696	39		>75% Grass cover, Good, HSG A
88,176	61		>75% Grass cover, Good, HSG B
766,671	30		Meadow, non-grazed, HSG A
115,153	58		Meadow, non-grazed, HSG B
2,236	30		Brush, Good, HSG A
30,584	48		Brush, Good, HSG B
47,190	30		Woods, Good, HSG A
202,442	55		Woods, Good, HSG B
1,309,372	41	40	Weighted Average, UI Adjusted
1,292,970			98.75% Pervious Area
16,402			1.25% Impervious Area
16,402			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.2550	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
25.9	1,688	0.0240	1.08		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	107	0.0280	0.84		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
43.3	1,895	Total			

Subcatchment 47S: Sub 47



Summary for Reach 6R: W-NSD-35

Inflow Area = 58.963 ac, 0.00% Impervious, Inflow Depth = 0.95" for 10-year event
Inflow = 25.13 cfs @ 12.74 hrs, Volume= 4.687 af
Outflow = 24.41 cfs @ 12.97 hrs, Volume= 4.687 af, Atten= 3%, Lag= 14.3 min
Routed to Link SP5 :

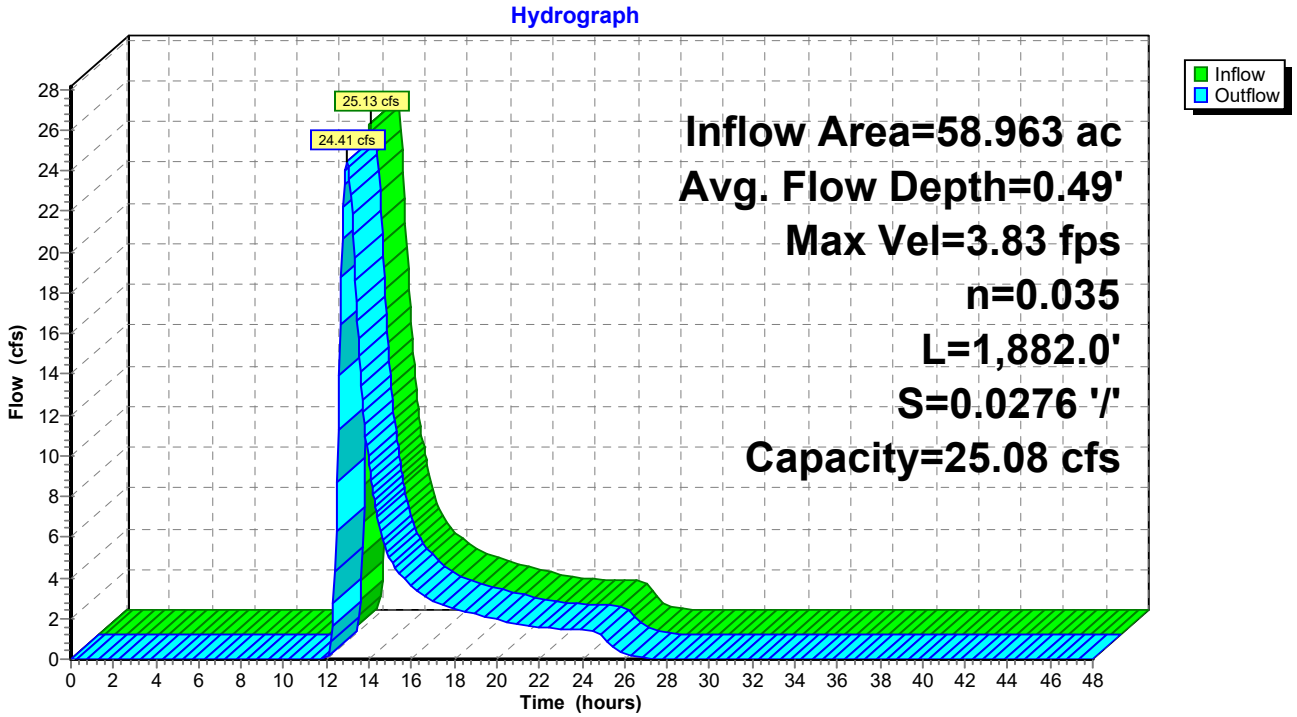
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.83 fps, Min. Travel Time= 8.2 min
Avg. Velocity = 0.91 fps, Avg. Travel Time= 34.5 min

Peak Storage= 12,019 cf @ 12.84 hrs
Average Depth at Peak Storage= 0.49' , Surface Width= 15.91'
Bank-Full Depth= 0.50' Flow Area= 6.5 sf, Capacity= 25.08 cfs

10.00' x 0.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 16.00'
Length= 1,882.0' Slope= 0.0276 '/'
Inlet Invert= 542.00', Outlet Invert= 490.00'

‡

Reach 6R: W-NSD-35



Summary for Reach 13.1R:

[79] Warning: Submerged Pond 12P Primary device # 1 OUTLET by 0.09'

Inflow Area = 4.859 ac, 53.67% Impervious, Inflow Depth = 3.15" for 10-year event
Inflow = 1.50 cfs @ 12.61 hrs, Volume= 1.277 af
Outflow = 1.50 cfs @ 12.65 hrs, Volume= 1.277 af, Atten= 0%, Lag= 2.3 min
Routed to Reach 13.2R :

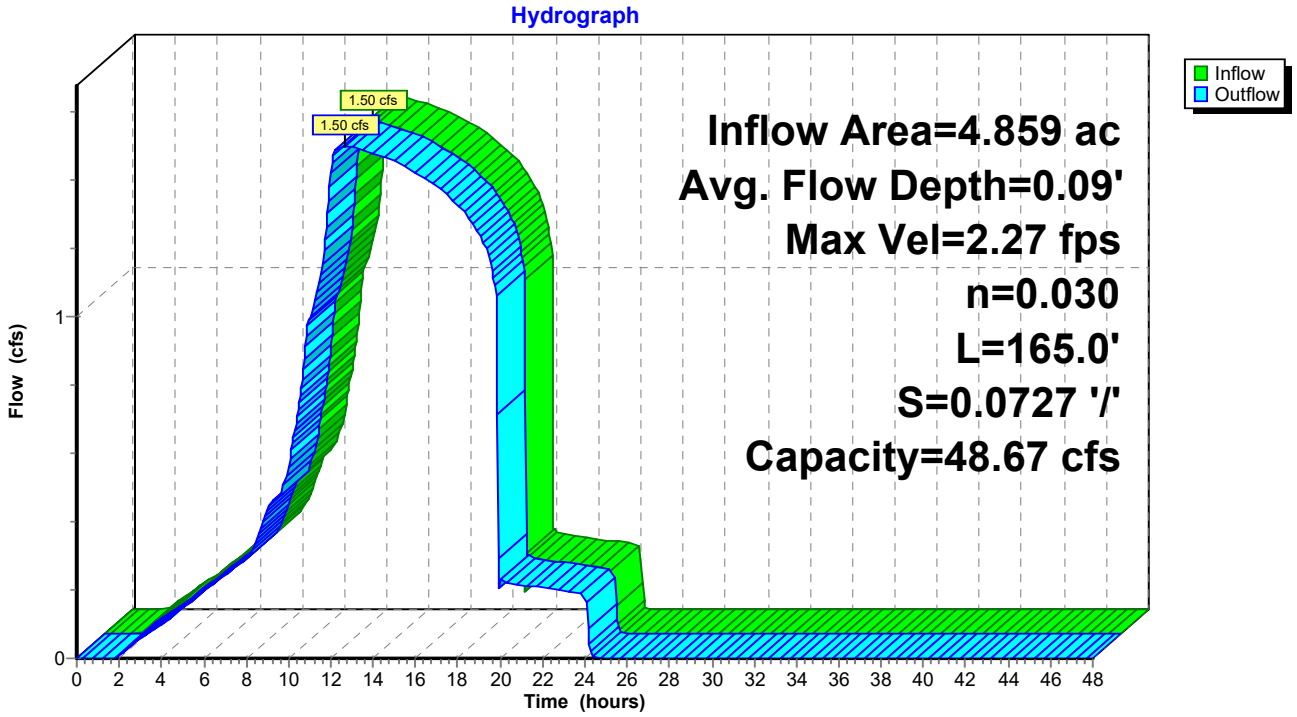
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.27 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.53 fps, Avg. Travel Time= 1.8 min

Peak Storage= 109 cf @ 12.63 hrs
Average Depth at Peak Storage= 0.09' , Surface Width= 9.42'
Bank-Full Depth= 0.50' Flow Area= 8.0 sf, Capacity= 48.67 cfs

6.00' x 0.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 20.0 '/' Top Width= 26.00'
Length= 165.0' Slope= 0.0727 '/'
Inlet Invert= 504.00', Outlet Invert= 492.00'

‡

Reach 13.1R:


Hydrograph
Inflow
Outflow
1.50 cfs
1.50 cfs
Inflow Area=4.859 ac
Avg. Flow Depth=0.09'
Max Vel=2.27 fps
n=0.030
L=165.0'
S=0.0727 '/'
Capacity=48.67 cfs
Flow (cfs)
0
1
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Reach 13.2R:

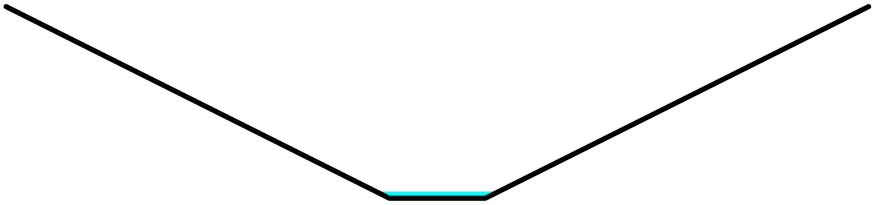
[62] Hint: Exceeded Reach 13.1R OUTLET depth by 0.05' @ 12.70 hrs

Inflow Area = 4.859 ac, 53.67% Impervious, Inflow Depth = 3.15" for 10-year event
Inflow = 1.50 cfs @ 12.65 hrs, Volume= 1.277 af
Outflow = 1.50 cfs @ 12.68 hrs, Volume= 1.277 af, Atten= 0%, Lag= 1.3 min
Routed to Link SP13 :

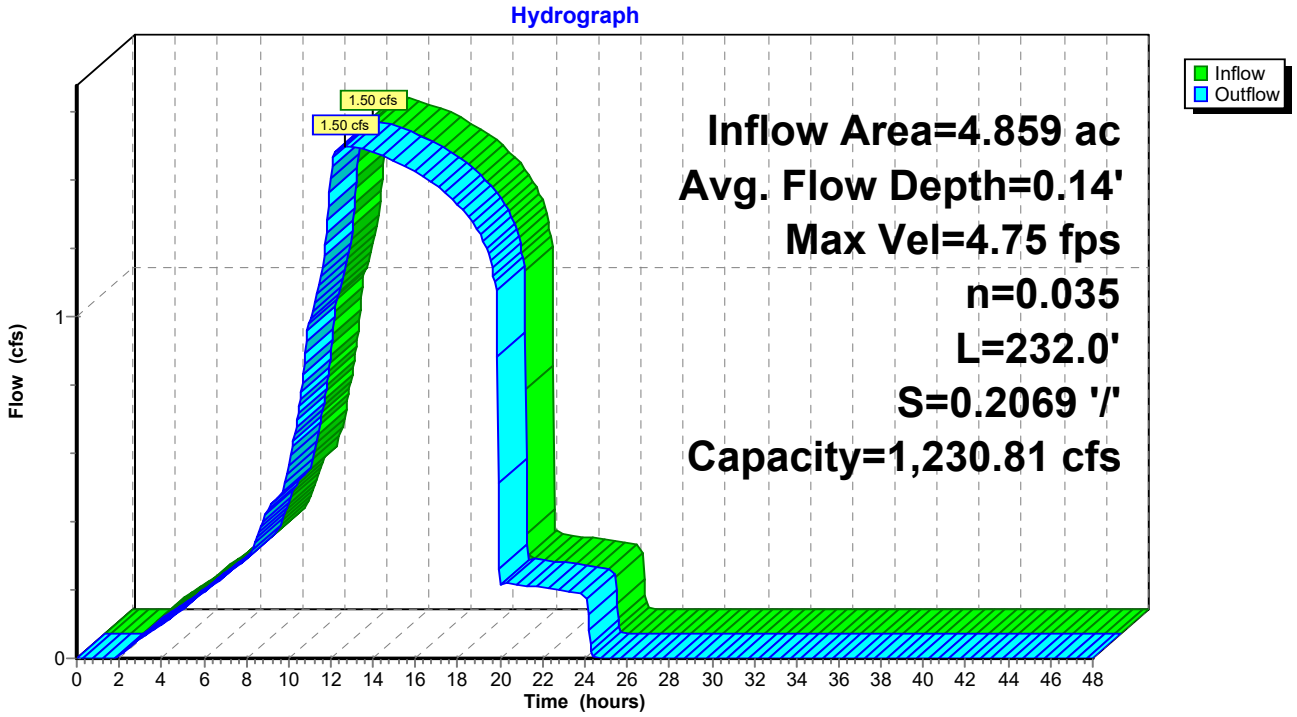
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.75 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 3.31 fps, Avg. Travel Time= 1.2 min

Peak Storage= 73 cf @ 12.66 hrs
Average Depth at Peak Storage= 0.14' , Surface Width= 2.55'
Bank-Full Depth= 4.00' Flow Area= 40.0 sf, Capacity= 1,230.81 cfs

2.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 '/' Top Width= 18.00'
Length= 232.0' Slope= 0.2069 '/'
Inlet Invert= 492.00', Outlet Invert= 444.00'



Reach 13.2R:


Hydrograph
Inflow
Outflow
1.50 cfs
1.50 cfs
Inflow Area=4.859 ac
Avg. Flow Depth=0.14'
Max Vel=4.75 fps
n=0.035
L=232.0'
S=0.2069 '/'
Capacity=1,230.81 cfs
Flow (cfs)
0
1
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Reach 20.1R: S-KCF-6

Inflow Area = 98.932 ac, 0.71% Impervious, Inflow Depth = 0.89" for 10-year event
Inflow = 74.09 cfs @ 12.20 hrs, Volume= 7.357 af
Outflow = 63.82 cfs @ 12.44 hrs, Volume= 7.357 af, Atten= 14%, Lag= 14.4 min
Routed to Reach 20.2R :

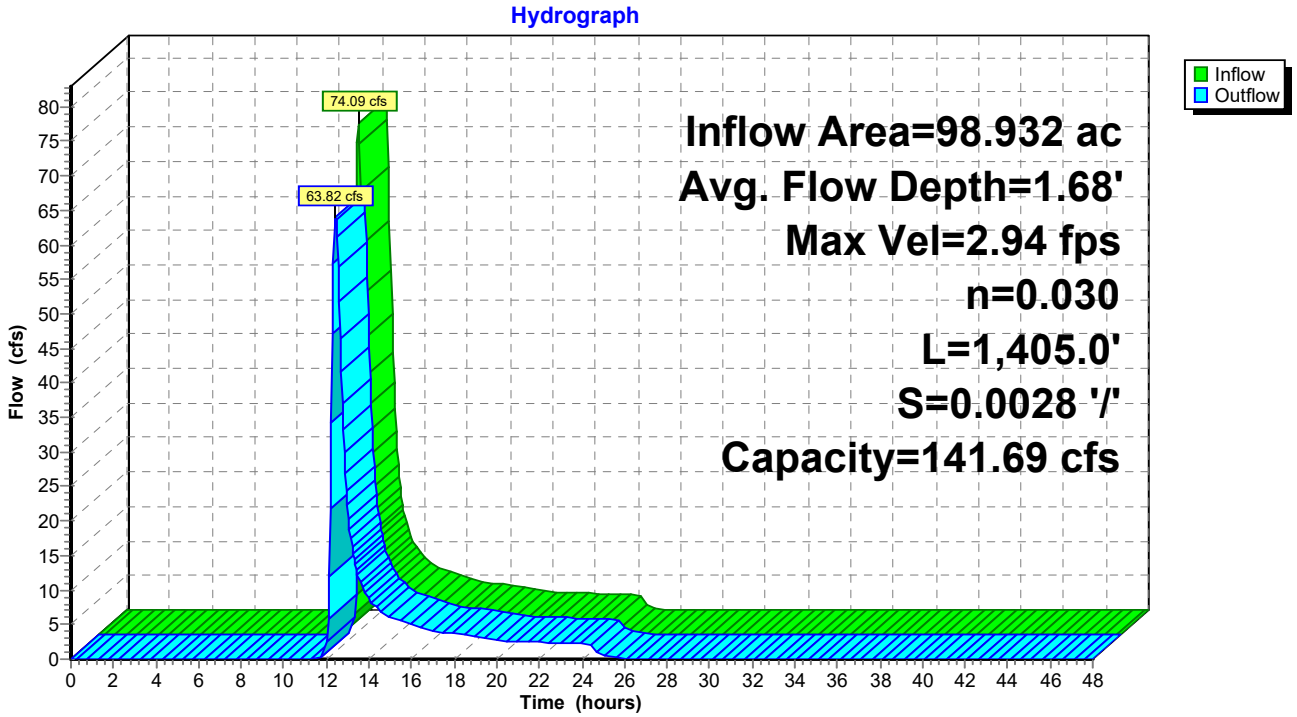
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.94 fps, Min. Travel Time= 8.0 min
Avg. Velocity = 0.72 fps, Avg. Travel Time= 32.6 min

Peak Storage= 30,714 cf @ 12.30 hrs
Average Depth at Peak Storage= 1.68' , Surface Width= 18.06'
Bank-Full Depth= 2.50' Flow Area= 38.8 sf, Capacity= 141.69 cfs

8.00' x 2.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 '/' Top Width= 23.00'
Length= 1,405.0' Slope= 0.0028 '/'
Inlet Invert= 494.00', Outlet Invert= 490.00'

‡

Reach 20.1R: S-KCF-6



Summary for Reach 20.2R:

[62] Hint: Exceeded Reach 20.1R OUTLET depth by 0.01' @ 25.05 hrs

Inflow Area = 98.932 ac, 0.71% Impervious, Inflow Depth = 0.89" for 10-year event
Inflow = 63.82 cfs @ 12.44 hrs, Volume= 7.357 af
Outflow = 60.47 cfs @ 12.60 hrs, Volume= 7.357 af, Atten= 5%, Lag= 9.5 min
Routed to Reach 22.2R :

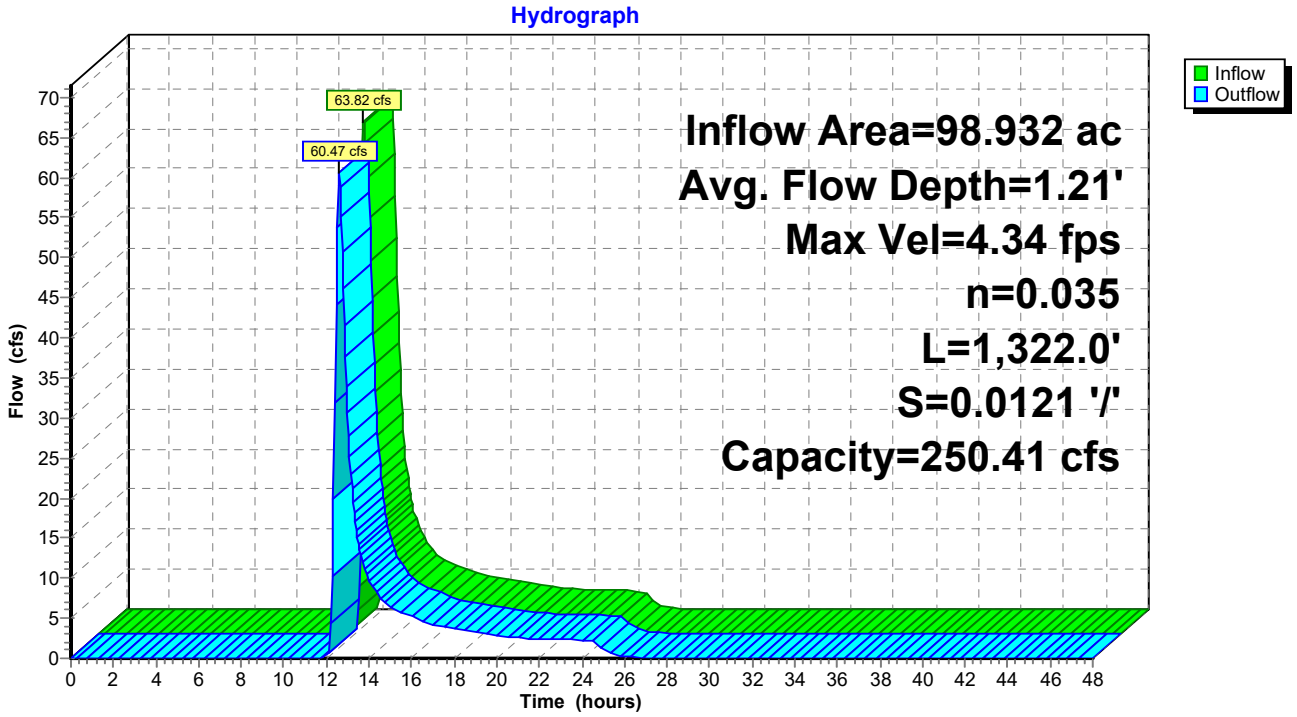
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.34 fps, Min. Travel Time= 5.1 min
Avg. Velocity = 1.08 fps, Avg. Travel Time= 20.4 min

Peak Storage= 18,524 cf @ 12.51 hrs
Average Depth at Peak Storage= 1.21' , Surface Width= 15.24'
Bank-Full Depth= 2.50' Flow Area= 38.8 sf, Capacity= 250.41 cfs

8.00' x 2.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 3.0 '/' Top Width= 23.00'
Length= 1,322.0' Slope= 0.0121 '/'
Inlet Invert= 490.00', Outlet Invert= 474.00'

‡

Reach 20.2R:


Hydrograph
Inflow
Outflow
63.82 cfs
60.47 cfs
Inflow Area=98.932 ac
Avg. Flow Depth=1.21'
Max Vel=4.34 fps
n=0.035
L=1,322.0'
S=0.0121 '/'
Capacity=250.41 cfs
Flow (cfs)
Time (hours)

Summary for Reach 22.1R: S-KCF-5

Inflow Area = 123.016 ac, 3.33% Impervious, Inflow Depth = 0.85" for 10-year event
Inflow = 60.04 cfs @ 12.45 hrs, Volume= 8.714 af
Outflow = 59.61 cfs @ 12.54 hrs, Volume= 8.714 af, Atten= 1%, Lag= 5.3 min
Routed to Reach 22.2R :

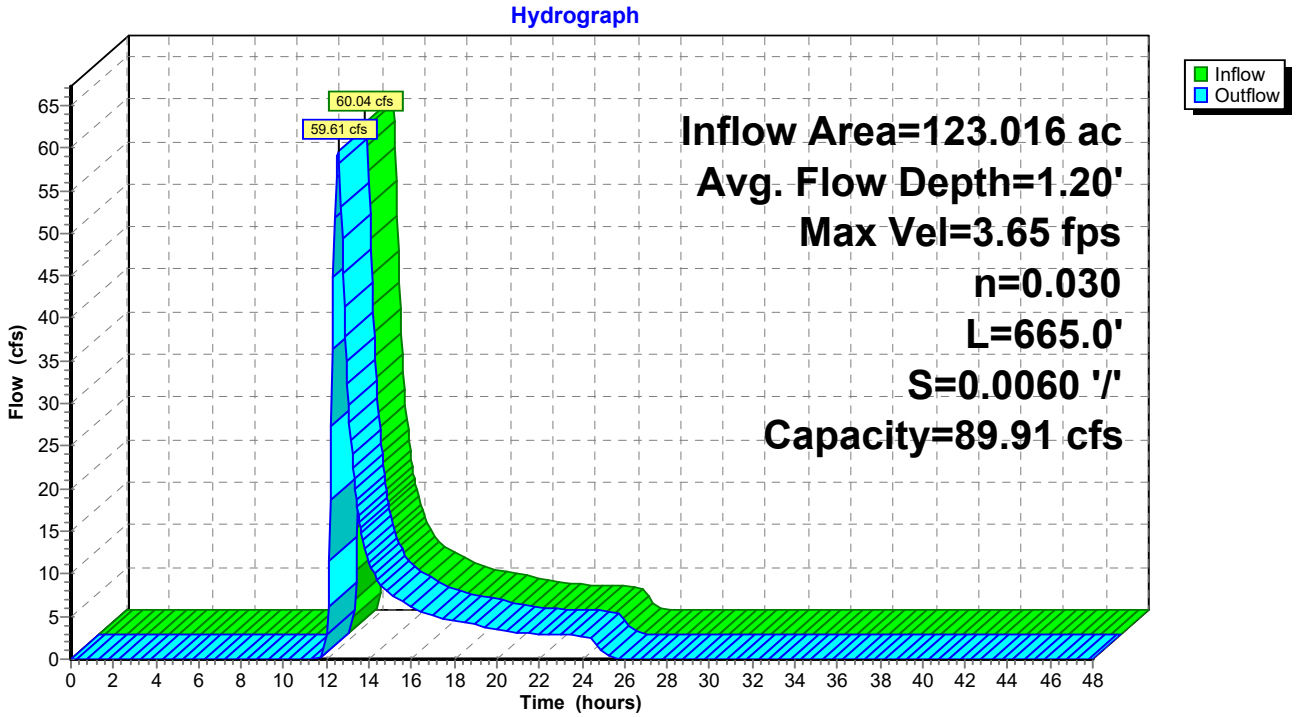
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.65 fps, Min. Travel Time= 3.0 min
Avg. Velocity = 1.17 fps, Avg. Travel Time= 9.5 min

Peak Storage= 10,850 cf @ 12.49 hrs
Average Depth at Peak Storage= 1.20' , Surface Width= 17.20'
Bank-Full Depth= 1.50' Flow Area= 21.8 sf, Capacity= 89.91 cfs

10.00' x 1.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 '/' Top Width= 19.00'
Length= 665.0' Slope= 0.0060 '/'
Inlet Invert= 478.00', Outlet Invert= 474.00'

‡

Reach 22.1R: S-KCF-5



Summary for Reach 22.2R:

[91] Warning: Storage range exceeded by 0.30'
[55] Hint: Peak inflow is 138% of Manning's capacity
[62] Hint: Exceeded Reach 20.2R OUTLET depth by 0.69' @ 12.70 hrs
[62] Hint: Exceeded Reach 22.1R OUTLET depth by 0.67' @ 12.70 hrs
[64] Warning: Exceeded Reach 22.1R outlet bank by 0.30' @ 12.62 hrs

Inflow Area = 221.948 ac, 2.16% Impervious, Inflow Depth = 0.87" for 10-year event
Inflow = 119.45 cfs @ 12.58 hrs, Volume= 16.071 af
Outflow = 118.14 cfs @ 12.66 hrs, Volume= 16.071 af, Atten= 1%, Lag= 5.1 min
Routed to Link SP22 :

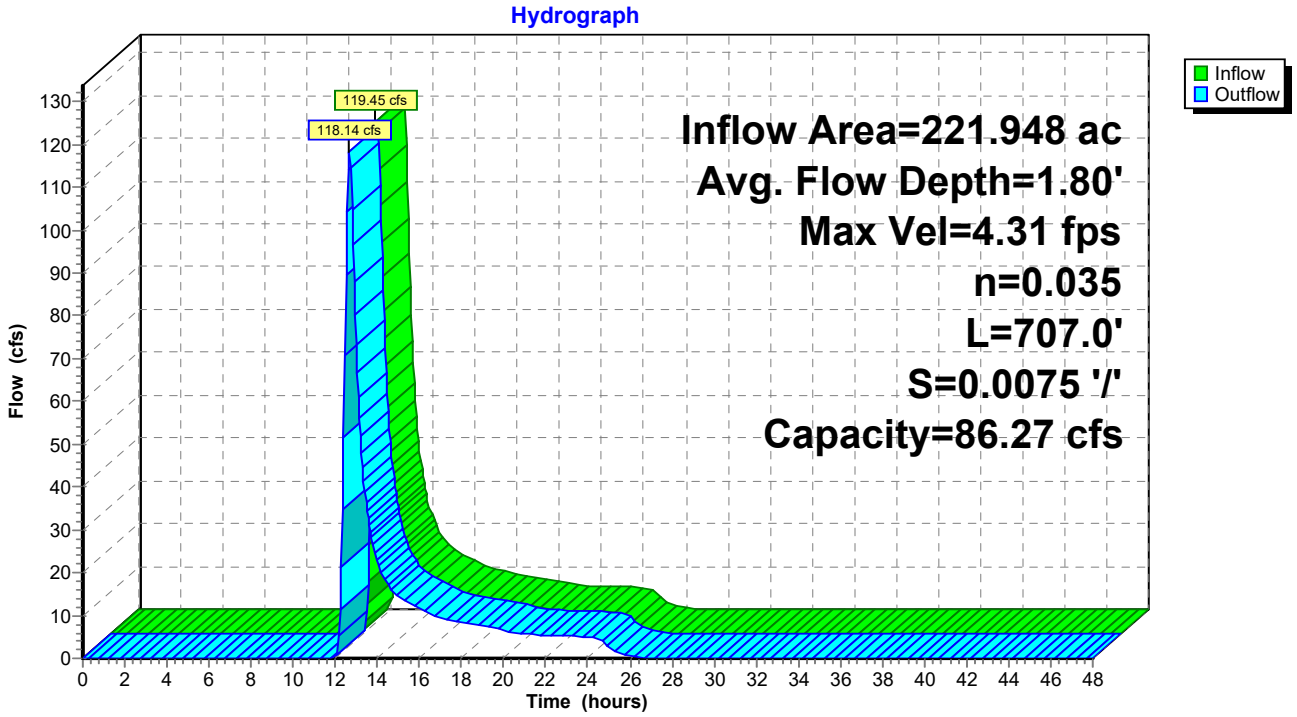
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.31 fps, Min. Travel Time= 2.7 min
Avg. Velocity = 1.00 fps, Avg. Travel Time= 11.7 min

Peak Storage= 19,414 cf @ 12.62 hrs
Average Depth at Peak Storage= 1.80' , Surface Width= 20.81'
Bank-Full Depth= 1.50' Flow Area= 21.8 sf, Capacity= 86.27 cfs

10.00' x 1.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 3.0 '/' Top Width= 19.00'
Length= 707.0' Slope= 0.0075 '/'
Inlet Invert= 474.00', Outlet Invert= 468.67'

‡

Reach 22.2R:


Hydrograph
Inflow
Outflow
119.45 cfs
118.14 cfs
Inflow Area=221.948 ac
Avg. Flow Depth=1.80'
Max Vel=4.31 fps
n=0.035
L=707.0'
S=0.0075 '/'
Capacity=86.27 cfs
Flow (cfs)
Time (hours)

Summary for Reach 44R:

[91] Warning: Storage range exceeded by 0.38'
[55] Hint: Peak inflow is 266% of Manning's capacity

Inflow Area = 34.065 ac, 0.27% Impervious, Inflow Depth = 1.06" for 10-year event
Inflow = 23.12 cfs @ 12.41 hrs, Volume= 3.020 af
Outflow = 22.92 cfs @ 12.48 hrs, Volume= 3.020 af, Atten= 1%, Lag= 3.8 min
Routed to Reach 45R :

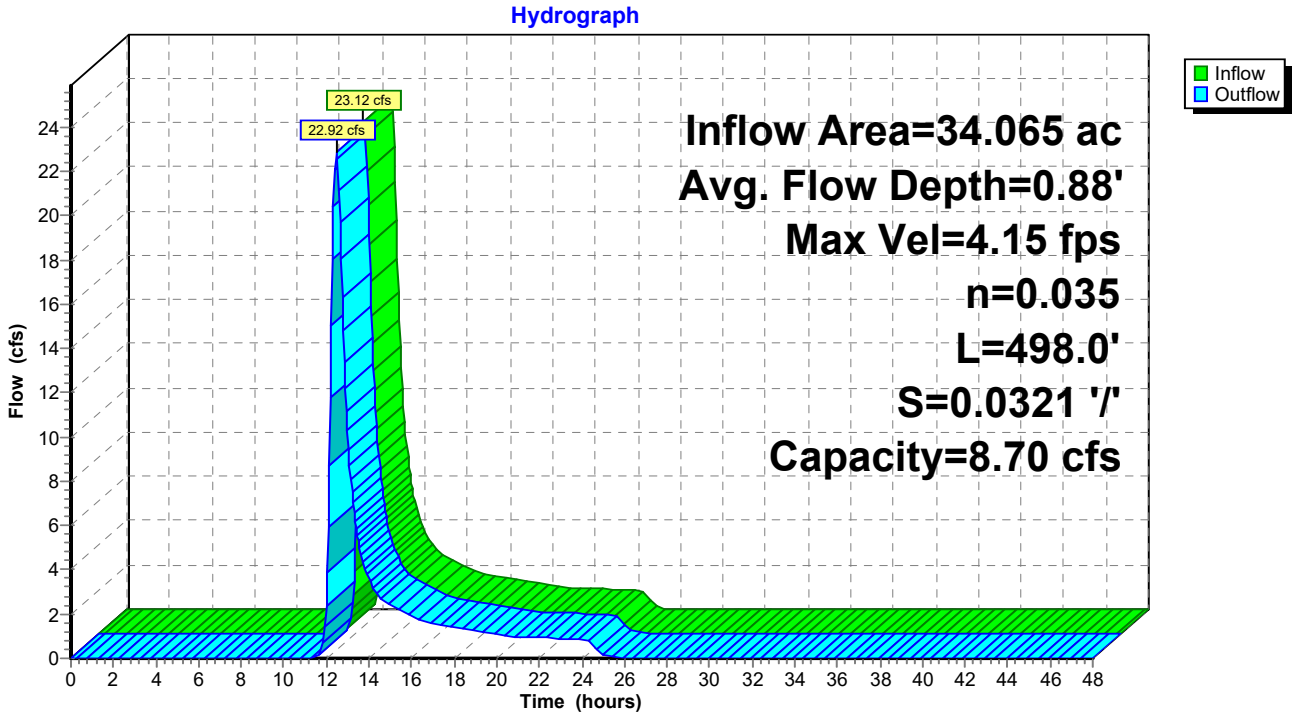
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.15 fps, Min. Travel Time= 2.0 min
Avg. Velocity = 1.75 fps, Avg. Travel Time= 4.7 min

Peak Storage= 2,762 cf @ 12.44 hrs
Average Depth at Peak Storage= 0.88' , Surface Width= 12.59'
Bank-Full Depth= 0.50' Flow Area= 2.5 sf, Capacity= 8.70 cfs

2.00' x 0.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 8.00'
Length= 498.0' Slope= 0.0321 '/'
Inlet Invert= 404.00', Outlet Invert= 388.00'

‡

Reach 44R:


Hydrograph
Inflow
Outflow
23.12 cfs
22.92 cfs
Inflow Area=34.065 ac
Avg. Flow Depth=0.88'
Max Vel=4.15 fps
n=0.035
L=498.0'
S=0.0321 '/'
Capacity=8.70 cfs
Flow (cfs)
Time (hours)

Summary for Reach 45R:

[91] Warning: Storage range exceeded by 0.56'
[55] Hint: Peak inflow is 294% of Manning's capacity
[62] Hint: Exceeded Reach 44R OUTLET depth by 0.19' @ 12.55 hrs
[64] Warning: Exceeded Reach 44R outlet bank by 0.56' @ 12.48 hrs

Inflow Area = 73.929 ac, 0.12% Impervious, Inflow Depth = 1.03" for 10-year event
Inflow = 47.62 cfs @ 12.45 hrs, Volume= 6.369 af
Outflow = 47.30 cfs @ 12.50 hrs, Volume= 6.369 af, Atten= 1%, Lag= 2.9 min
Routed to Link SP43 :

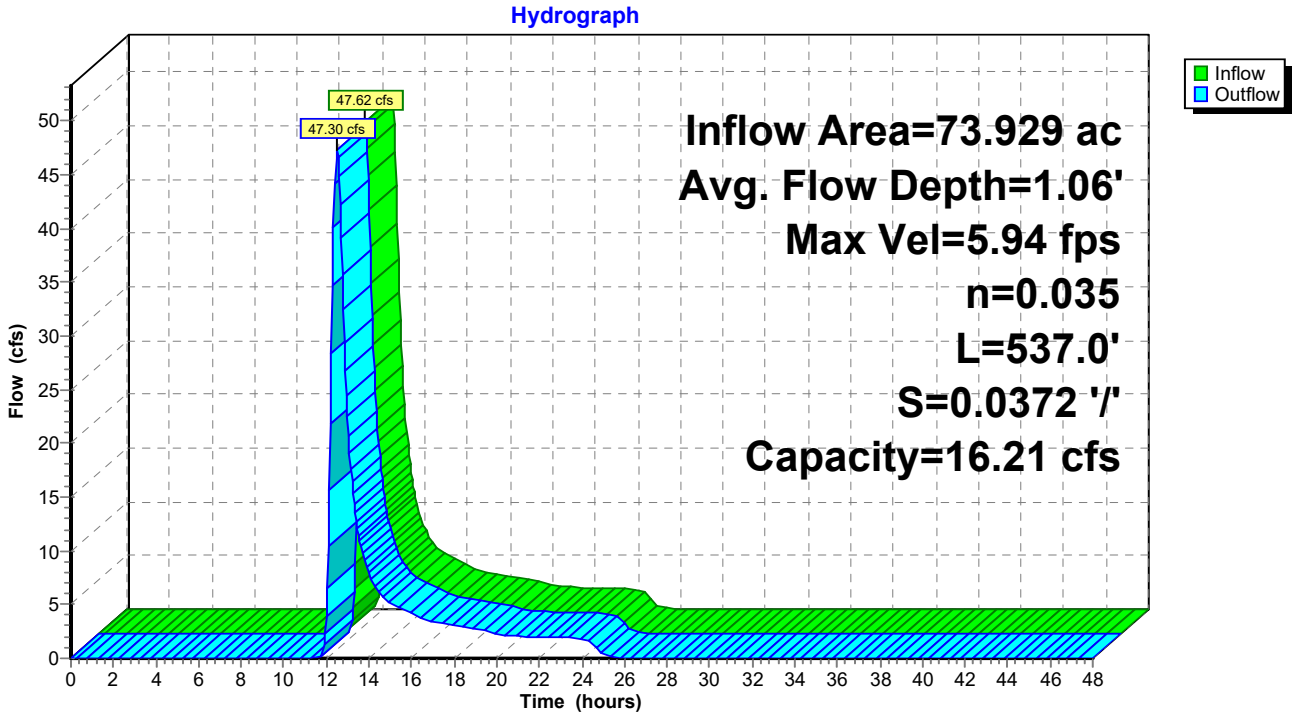
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.94 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 2.01 fps, Avg. Travel Time= 4.5 min

Peak Storage= 4,288 cf @ 12.48 hrs
Average Depth at Peak Storage= 1.06' , Surface Width= 10.25'
Bank-Full Depth= 0.50' Flow Area= 3.5 sf, Capacity= 16.21 cfs

6.00' x 0.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 '/' Top Width= 8.00'
Length= 537.0' Slope= 0.0372 '/'
Inlet Invert= 388.00', Outlet Invert= 368.00'

‡

Reach 45R:


Hydrograph
Inflow
Outflow
47.62 cfs
47.30 cfs
Inflow Area=73.929 ac
Avg. Flow Depth=1.06'
Max Vel=5.94 fps
n=0.035
L=537.0'
S=0.0372 '/'
Capacity=16.21 cfs
Flow (cfs)
Time (hours)

Summary for Pond 4.1P: 4.1P

[92] Warning: Device #4 is above defined storage

Inflow Area = 15.089 ac, 0.00% Impervious, Inflow Depth = 0.90" for 10-year event
Inflow = 22.83 cfs @ 11.98 hrs, Volume= 1.133 af
Outflow = 0.36 cfs @ 22.29 hrs, Volume= 0.750 af, Atten= 98%, Lag= 618.6 min
Primary = 0.36 cfs @ 22.29 hrs, Volume= 0.750 af
Routed to Link SP4 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP4 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 492.91' @ 22.29 hrs Surf.Area= 25,879 sf Storage= 35,092 cf

Plug-Flow detention time= 858.3 min calculated for 0.750 af (66% of inflow)
Center-of-Mass det. time= 733.6 min (1,606.5 - 872.9)

Volume	Invert	Avail.Storage	Storage Description
#1	491.50'	106,981 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

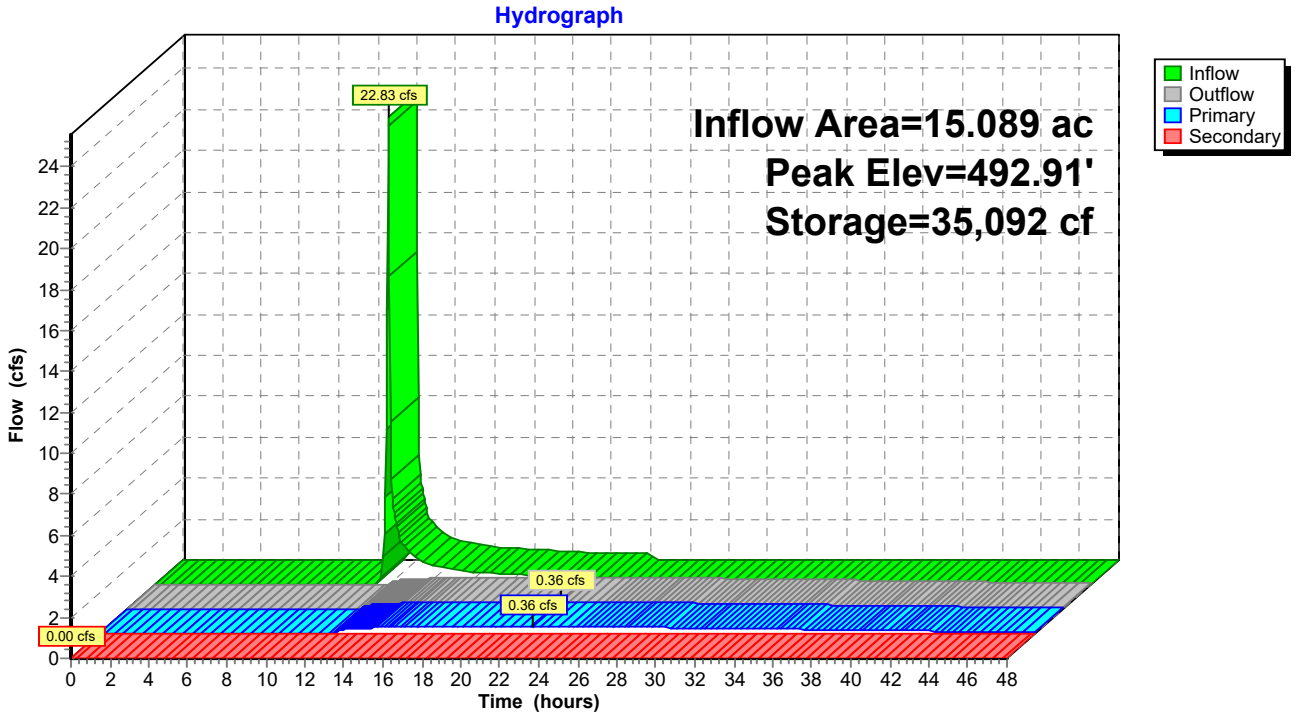
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
491.50	23,879	0	0
492.00	24,582	12,115	12,115
493.00	26,006	25,294	37,409
494.00	27,454	26,730	64,139
495.00	28,928	28,191	92,330
495.50	29,674	14,651	106,981

Device	Routing	Invert	Outlet Devices
#1	Primary	491.50'	**12.0" Round Culvert** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 491.50' / 491.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	494.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	492.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.50'	**6.0' long + 2.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.36 cfs @ 22.29 hrs HW=492.91' (Free Discharge)
└**1=Culvert** (Passes 0.36 cfs of 2.85 cfs potential flow)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Orifice Controls 0.36 cfs @ 4.15 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.50' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 4.1P: 4.1P


Hydrograph
Inflow Area=15.089 ac
Peak Elev=492.91'
Storage=35,092 cf
22.83 cfs
0.36 cfs
0.36 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)

Summary for Pond 7.1P:

Inflow Area = 4.575 ac, 0.00% Impervious, Inflow Depth = 0.49" for 10-year event
Inflow = 2.02 cfs @ 12.11 hrs, Volume= 0.187 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP7 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP7 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 513.13' @ 24.90 hrs Surf.Area= 8,073 sf Storage= 8,163 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	512.00'	37,773 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

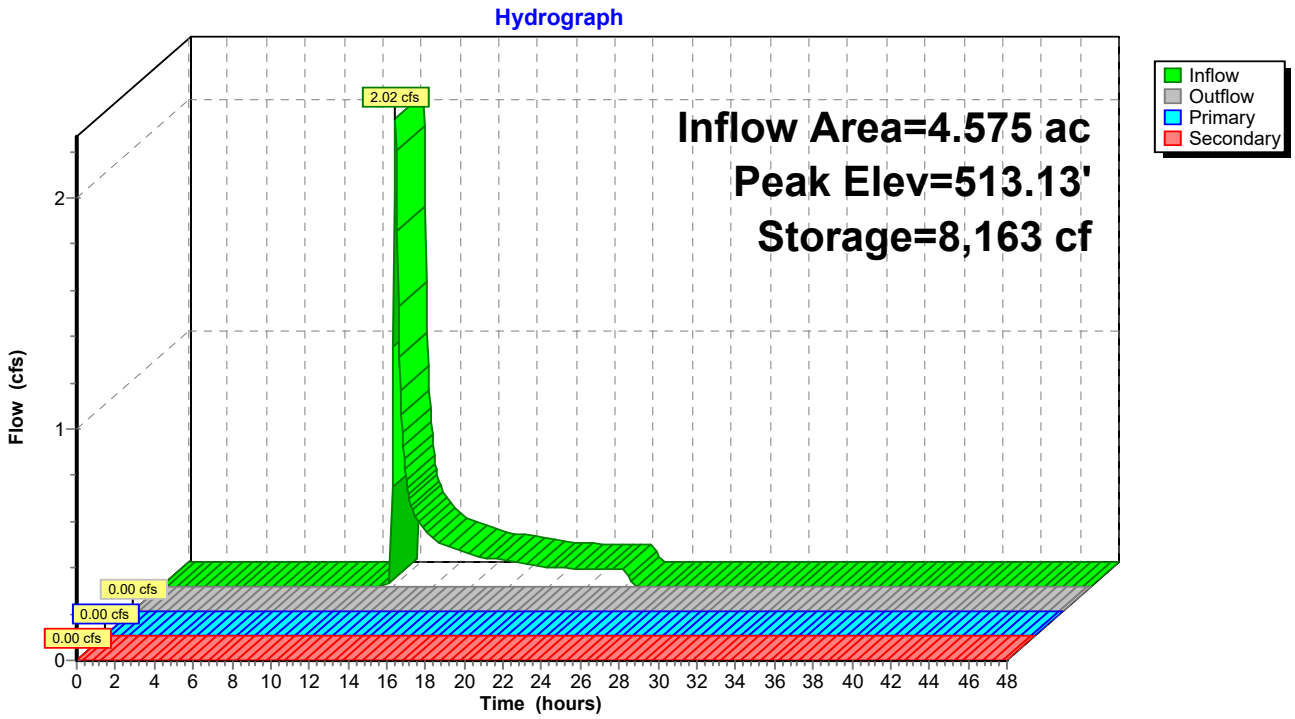
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
512.00	6,414	0	0
513.00	7,879	7,147	7,147
514.00	9,401	8,640	15,787
515.00	10,979	10,190	25,977
516.00	12,614	11,797	37,773

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 512.00' / 510.00' S= 0.0606 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	515.00'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	512.25'	**4.0" Vert. Orifice/Grate X 0.00** C= 0.600 Limited to weir flow at low heads
#4	Secondary	515.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7.1P:


Hydrograph
Inflow Area=4.575 ac
Peak Elev=513.13'
Storage=8,163 cf
2.02 cfs
0.00 cfs
0.00 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0
1
2
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

Summary for Pond 9.1P: 9.1P

Inflow Area = 8.972 ac, 0.00% Impervious, Inflow Depth = 1.18" for 10-year event
Inflow = 7.88 cfs @ 12.32 hrs, Volume= 0.882 af
Outflow = 0.47 cfs @ 16.40 hrs, Volume= 0.668 af, Atten= 94%, Lag= 245.1 min
Primary = 0.47 cfs @ 16.40 hrs, Volume= 0.668 af
Routed to Link SP9 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP9 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 468.44' @ 16.40 hrs Surf.Area= 10,611 sf Storage= 23,148 cf

Plug-Flow detention time= 555.2 min calculated for 0.667 af (76% of inflow)
Center-of-Mass det. time= 457.2 min (1,339.6 - 882.4)

Volume	Invert	Avail.Storage	Storage Description
#1	466.00'	40,833 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

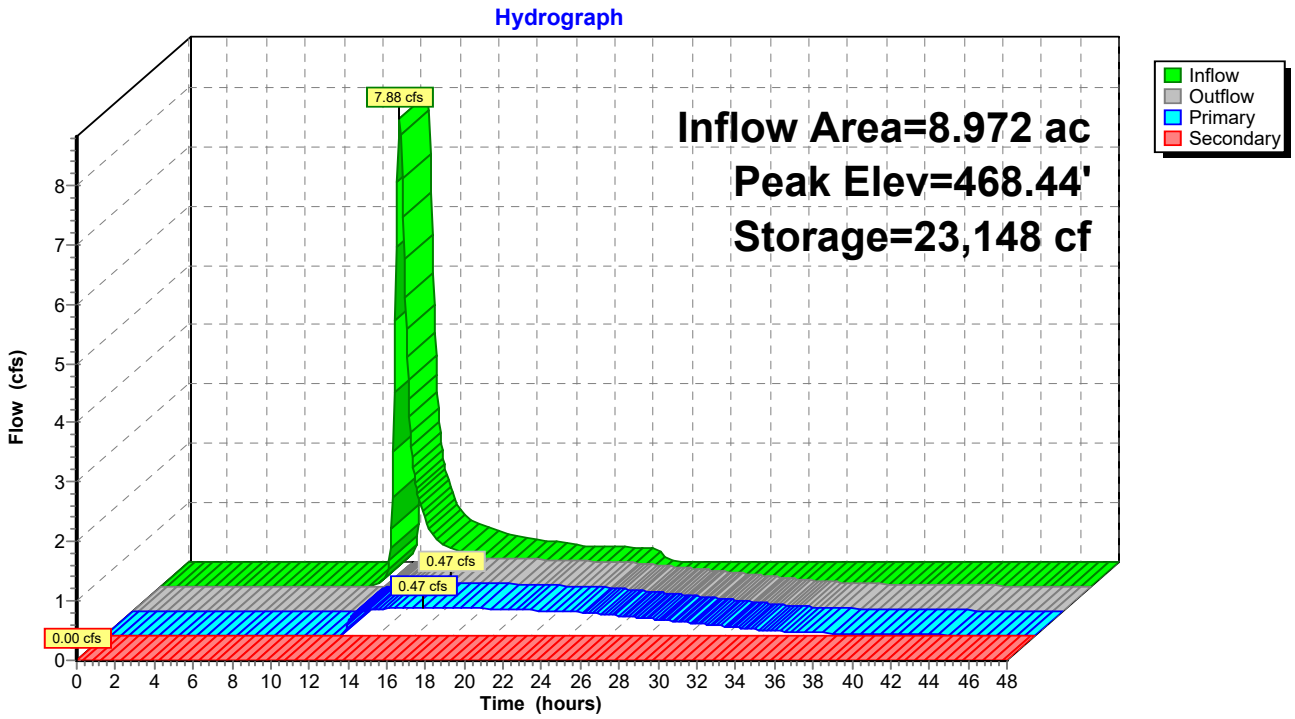
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
466.00	8,356	0	0
467.00	9,263	8,810	8,810
468.00	10,188	9,726	18,535
469.00	11,142	10,665	29,200
470.00	12,124	11,633	40,833

Device	Routing	Invert	Outlet Devices
#1	Primary	466.00'	**12.0" Round Culvert** L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 466.00' / 462.00' S= 0.1333 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	469.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	467.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	469.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.47 cfs @ 16.40 hrs HW=468.44' (Free Discharge)
└**1=Culvert** (Passes 0.47 cfs of 4.16 cfs potential flow)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  └**3=Orifice/Grate** (Orifice Controls 0.47 cfs @ 5.44 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=466.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9.1P: 9.1P


Hydrograph
Inflow Area=8.972 ac
Peak Elev=468.44'
Storage=23,148 cf
7.88 cfs
0.47 cfs
0.47 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
0 1 2 3 4 5 6 7 8

Summary for Pond 10.1P: 10.1P

Inflow Area = 2.860 ac, 0.00% Impervious, Inflow Depth = 1.06" for 10-year event
Inflow = 3.27 cfs @ 12.13 hrs, Volume= 0.254 af
Outflow = 0.10 cfs @ 19.15 hrs, Volume= 0.043 af, Atten= 97%, Lag= 421.2 min
Primary = 0.10 cfs @ 19.15 hrs, Volume= 0.043 af
Routed to Link SP10 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP10 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 569.52' @ 19.15 hrs Surf.Area= 7,090 sf Storage= 9,292 cf

Plug-Flow detention time= 558.4 min calculated for 0.043 af (17% of inflow)
Center-of-Mass det. time= 402.5 min (1,277.0 - 874.5)

Volume	Invert	Avail.Storage	Storage Description
#1	568.00'	30,342 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

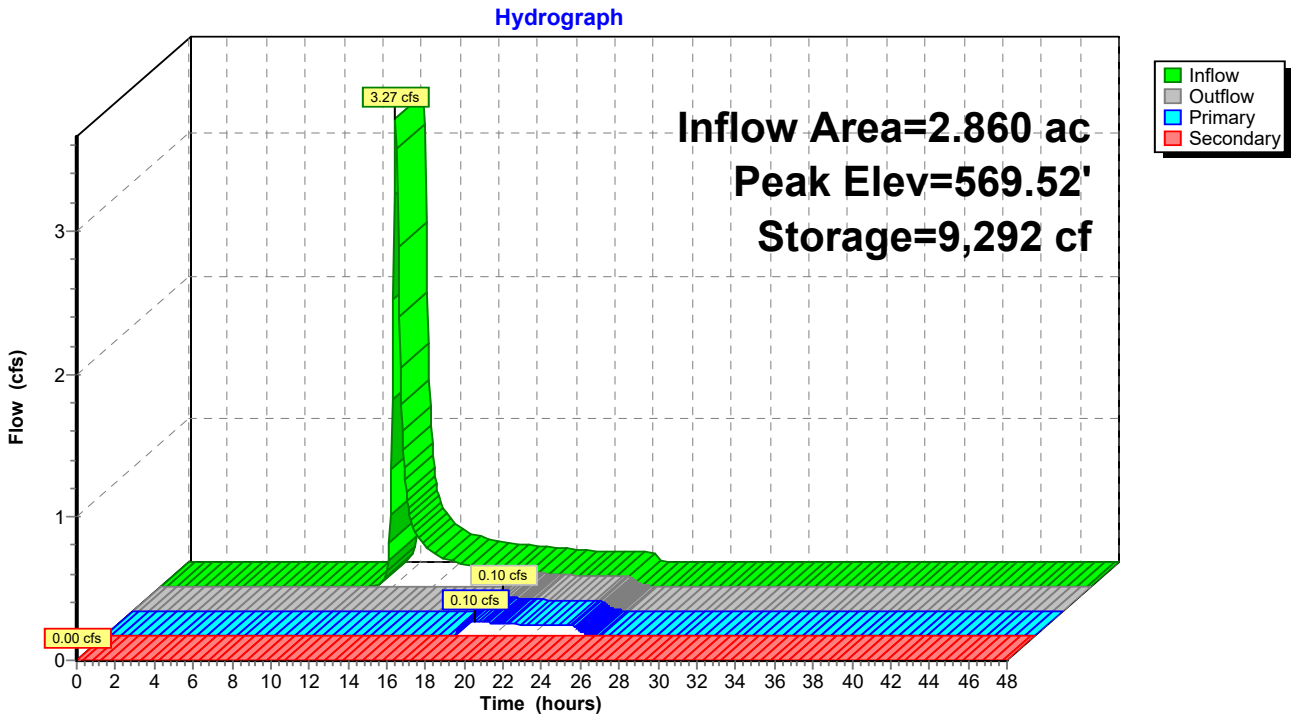
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
568.00	5,183	0	0
569.00	6,419	5,801	5,801
570.00	7,717	7,068	12,869
571.00	9,076	8,397	21,266
572.00	9,077	9,077	30,342

Device	Routing	Invert	Outlet Devices
#1	Primary	568.00'	**12.0" Round Culvert** L= 80.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 568.00' / 567.50' S= 0.0063 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	569.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	571.00'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.09 cfs @ 19.15 hrs HW=569.52' (Free Discharge)
└**1=Culvert** (Passes 0.09 cfs of 3.01 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.09 cfs @ 0.42 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=568.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10.1P: 10.1P



Summary for Pond 12P: 12P

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 4.859 ac, 53.67% Impervious, Inflow Depth = 3.15" for 10-year event
Inflow = 23.14 cfs @ 11.96 hrs, Volume= 1.277 af
Outflow = 1.50 cfs @ 12.61 hrs, Volume= 1.277 af, Atten= 94%, Lag= 39.2 min
Primary = 1.50 cfs @ 12.61 hrs, Volume= 1.277 af
Routed to Reach 13.1R :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 507.86' @ 12.61 hrs Surf.Area= 34,642 sf Storage= 22,918 cf

Plug-Flow detention time= 114.8 min calculated for 1.277 af (100% of inflow)
Center-of-Mass det. time= 114.4 min (874.5 - 760.1)

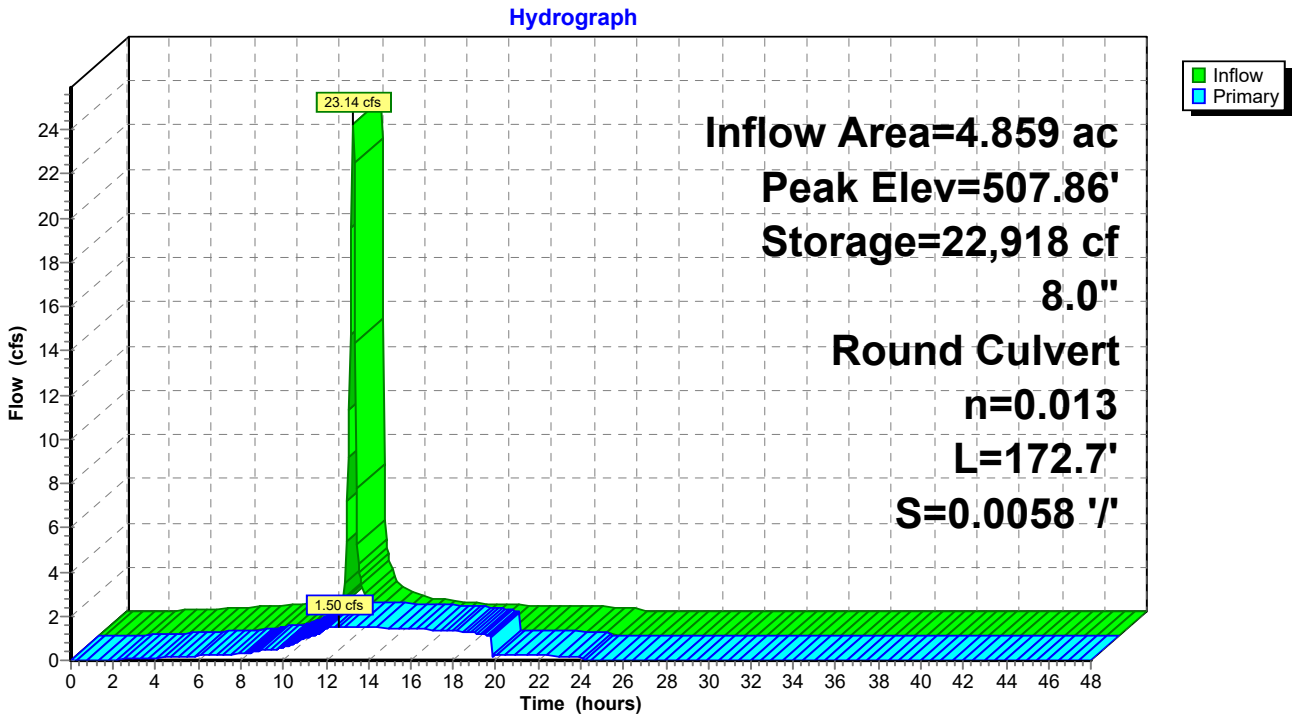
Volume	Invert	Avail.Storage	Storage Description
#1	506.00'	349,842 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
506.00	138	45.5	0	0	138
508.00	39,705	811.5	28,123	28,123	52,385
510.00	80,589	1,415.9	117,907	146,030	159,538
512.00	124,830	2,053.3	203,812	349,842	335,540

Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	**8.0" Round Culvert**
			L= 172.7' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 505.00' / 504.00' S= 0.0058 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.50 cfs @ 12.61 hrs HW=507.86' (Free Discharge)
↑**1=Culvert** (Barrel Controls 1.50 cfs @ 4.28 fps)

Pond 12P: 12P


Hydrograph
Inflow
Primary
23.14 cfs
1.50 cfs
Inflow Area=4.859 ac
Peak Elev=507.86'
Storage=22,918 cf
8.0"
Round Culvert
n=0.013
L=172.7'
S=0.0058 '/'
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

Summary for Pond 23.1P: 23.1P

Inflow Area = 3.682 ac, 0.00% Impervious, Inflow Depth = 1.01" for 10-year event
Inflow = 6.33 cfs @ 11.98 hrs, Volume= 0.309 af
Outflow = 0.47 cfs @ 12.87 hrs, Volume= 0.222 af, Atten= 93%, Lag= 53.4 min
Primary = 0.47 cfs @ 12.87 hrs, Volume= 0.222 af
Routed to Link SP23 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP23 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 493.50' @ 12.87 hrs Surf.Area= 4,352 sf Storage= 5,908 cf

Plug-Flow detention time= 274.2 min calculated for 0.222 af (72% of inflow)
Center-of-Mass det. time= 163.2 min (1,029.2 - 866.0)

Volume	Invert	Avail.Storage	Storage Description
#1	492.00'	24,768 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

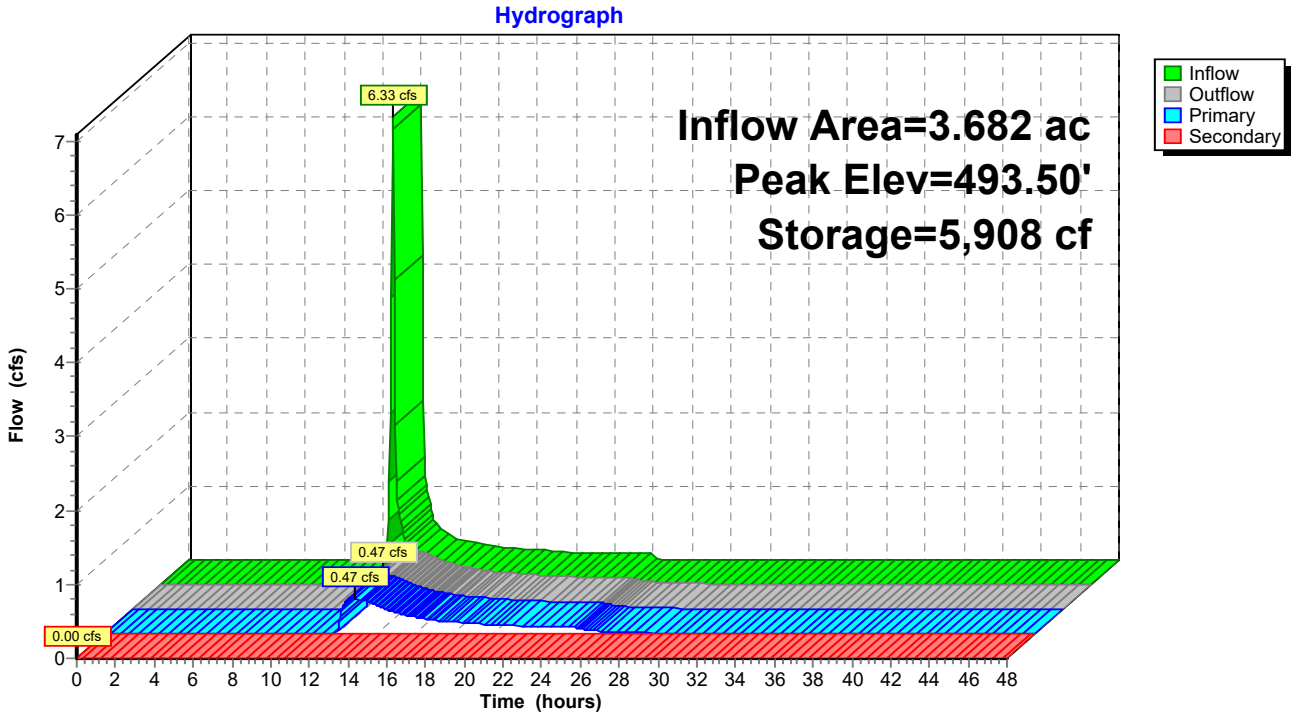
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
492.00	3,530	0	0
493.00	4,069	3,800	3,800
494.00	4,634	4,352	8,151
495.00	5,223	4,929	13,080
496.00	5,838	5,531	18,610
497.00	6,477	6,158	24,768

Device	Routing	Invert	Outlet Devices
#1	Primary	492.00'	**24.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 492.00' / 489.00' S= 0.1071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	493.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	494.00'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	496.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.47 cfs @ 12.87 hrs HW=493.50' (Free Discharge)
└**1=Culvert** (Passes 0.47 cfs of 8.33 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=492.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 23.1P: 23.1P



Summary for Pond 44.1P: 44.1P

Inflow Area = 6.425 ac, 0.00% Impervious, Inflow Depth = 1.50" for 10-year event
Inflow = 16.76 cfs @ 11.98 hrs, Volume= 0.802 af
Outflow = 0.14 cfs @ 24.05 hrs, Volume= 0.168 af, Atten= 99%, Lag= 724.5 min
Primary = 0.14 cfs @ 24.05 hrs, Volume= 0.168 af
Routed to Link SP43 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP43 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 427.53' @ 24.05 hrs Surf.Area= 21,990 sf Storage= 32,067 cf

Plug-Flow detention time= 951.0 min calculated for 0.168 af (21% of inflow)
Center-of-Mass det. time= 813.0 min (1,654.0 - 841.1)

Volume	Invert	Avail.Storage	Storage Description
#1	426.00'	90,704 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

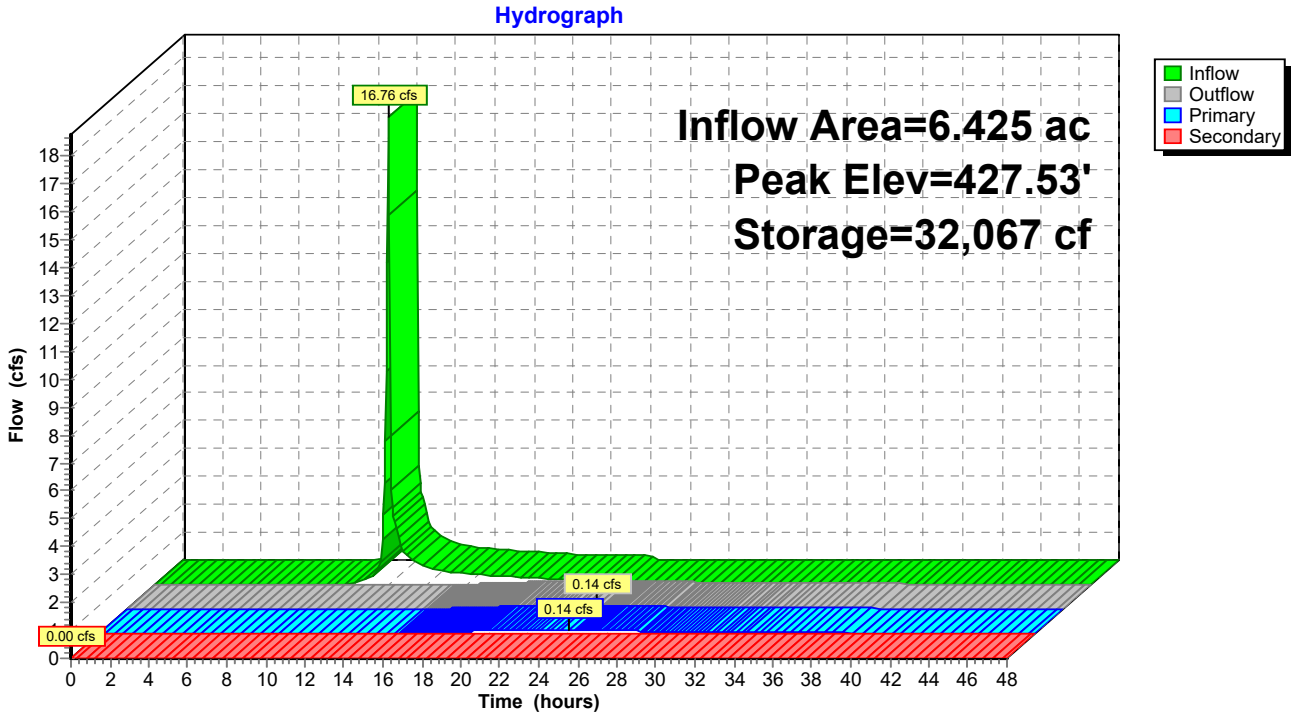
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
426.00	19,818	0	0
427.00	21,225	20,522	20,522
428.00	22,657	21,941	42,463
429.00	24,114	23,386	65,848
430.00	25,597	24,856	90,704

Device	Routing	Invert	Outlet Devices
#1	Primary	426.00'	**12.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 426.00' / 425.50' S= 0.0227 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	427.25'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	428.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	428.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.14 cfs @ 24.05 hrs HW=427.53' (Free Discharge)
└**1=Culvert** (Passes 0.14 cfs of 3.04 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.14 cfs @ 1.82 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=426.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 44.1P: 44.1P



Summary for Pond 46.1P: 46.1P

Inflow Area = 5.472 ac, 0.00% Impervious, Inflow Depth = 0.08" for 10-year event
Inflow = 0.05 cfs @ 13.92 hrs, Volume= 0.038 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP46 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP46 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 354.25' @ 25.80 hrs Surf.Area= 6,958 sf Storage= 1,667 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	354.00'	27,705 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

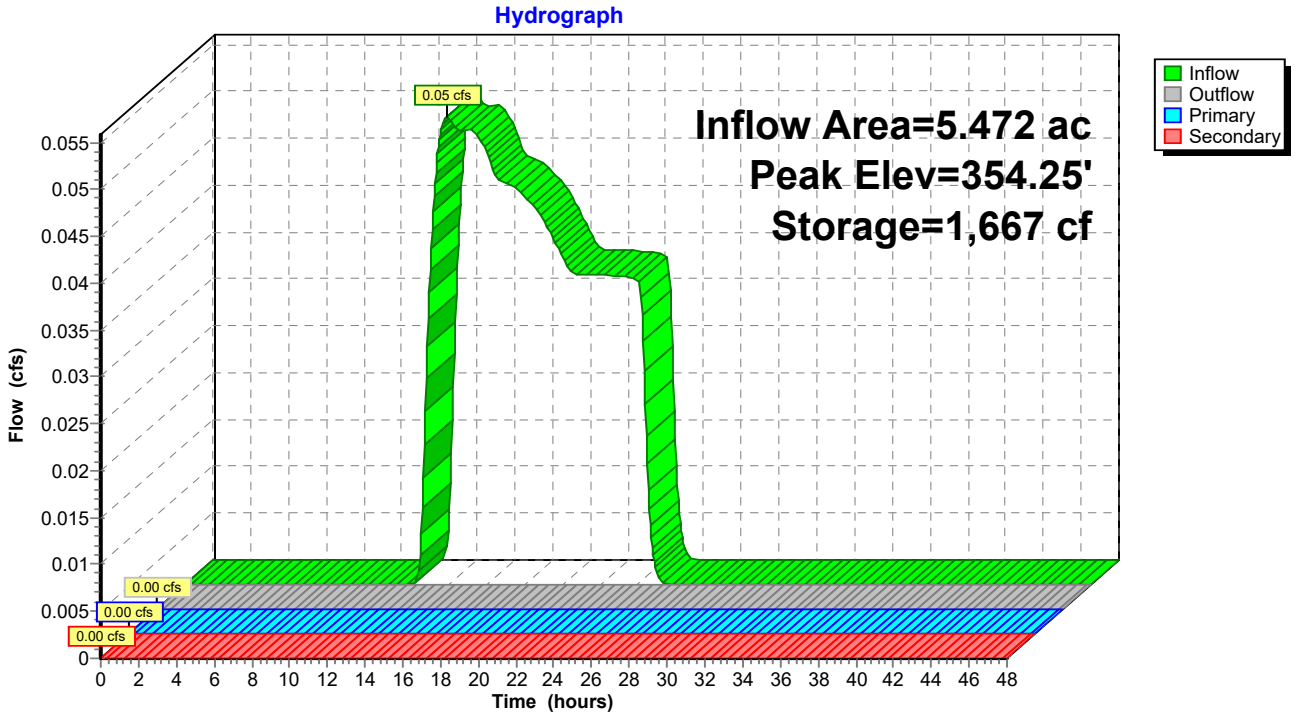
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
354.00	6,512	0	0
355.00	8,313	7,413	7,413
356.00	10,140	9,227	16,639
357.00	11,992	11,066	27,705

Device	Routing	Invert	Outlet Devices
#1	Primary	354.00'	**24.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 354.00' / 353.75' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	354.83'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	355.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	355.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=354.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=354.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 46.1P: 46.1P

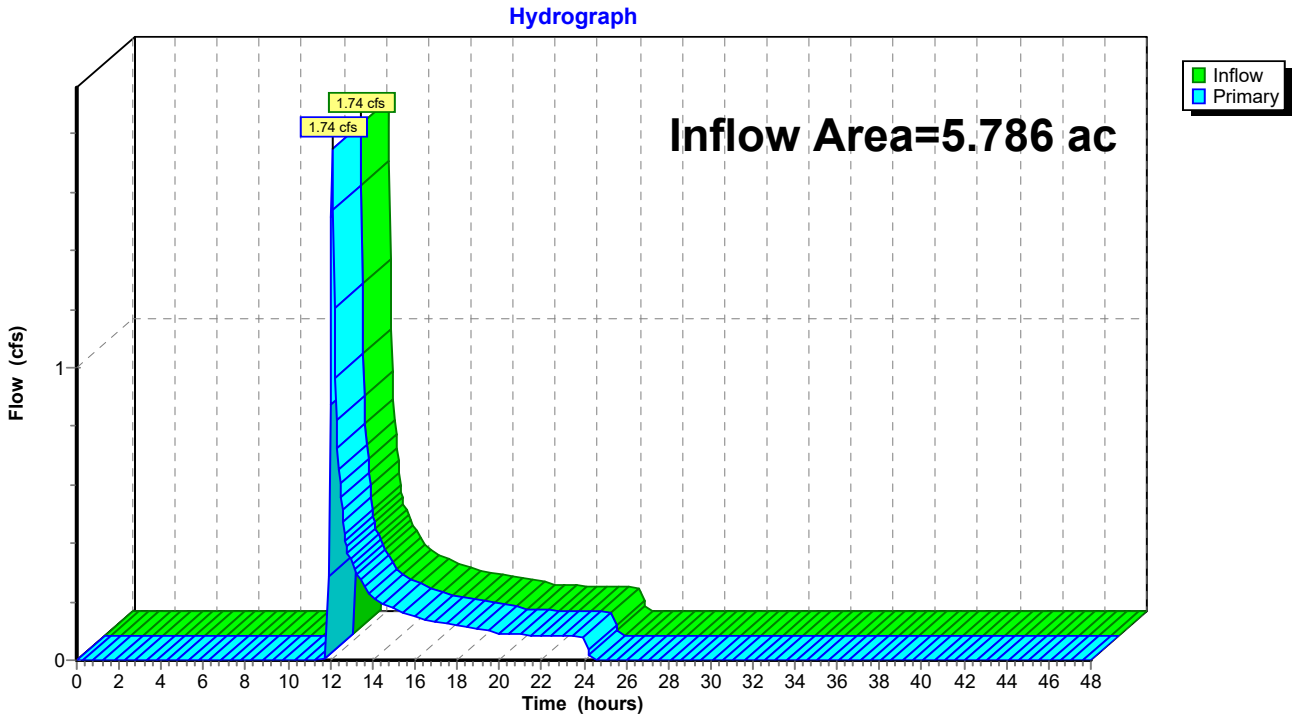


Summary for Link SP1:

Inflow Area = 5.786 ac, 0.00% Impervious, Inflow Depth = 0.38" for 10-year event
Inflow = 1.74 cfs @ 12.10 hrs, Volume= 0.183 af
Primary = 1.74 cfs @ 12.10 hrs, Volume= 0.183 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP1:

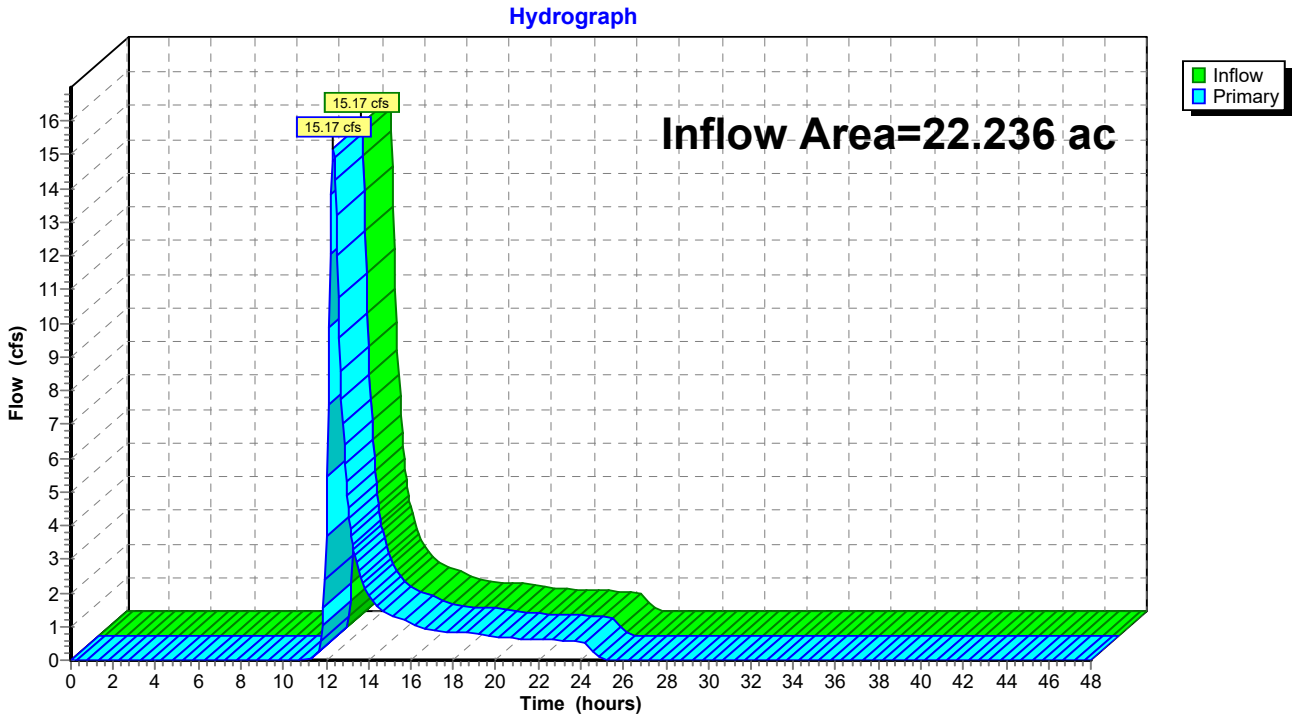


Summary for Link SP10:

Inflow Area = 22.236 ac, 4.90% Impervious, Inflow Depth = 1.00" for 10-year event
Inflow = 15.17 cfs @ 12.35 hrs, Volume= 1.853 af
Primary = 15.17 cfs @ 12.35 hrs, Volume= 1.853 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP10:

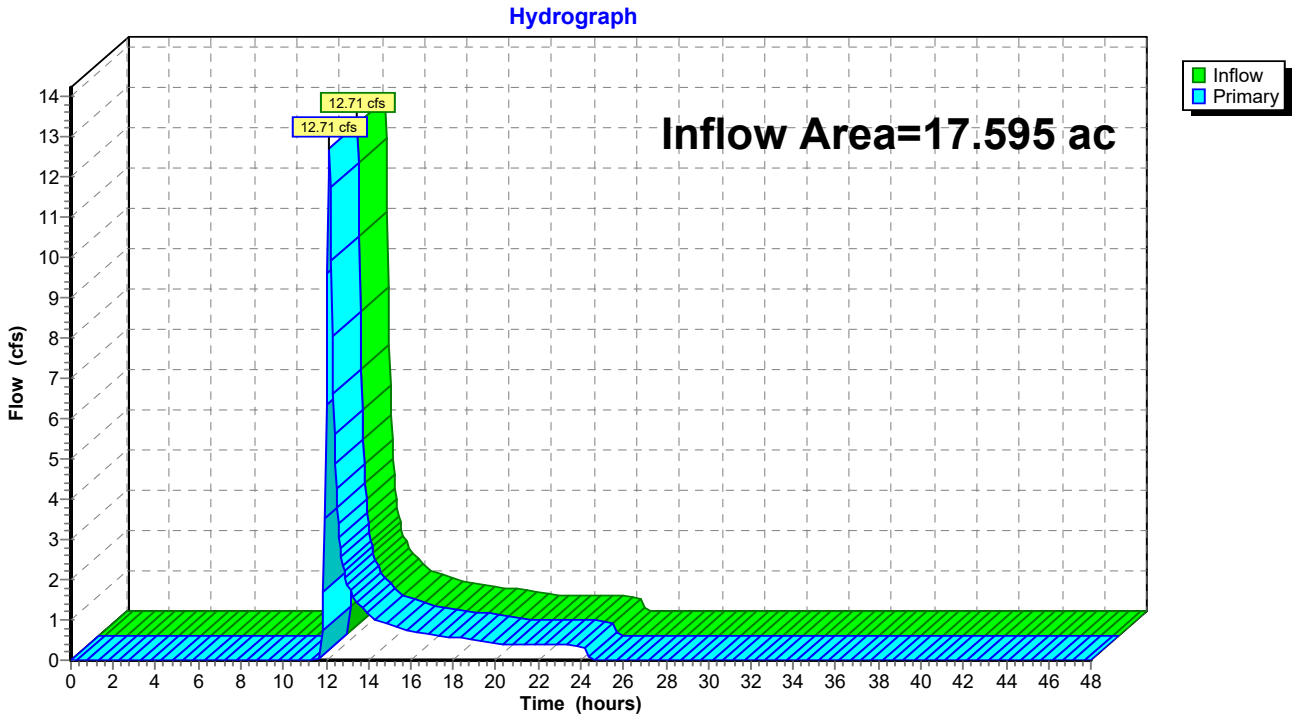


Summary for Link SP11:

Inflow Area = 17.595 ac, 2.63% Impervious, Inflow Depth = 0.75" for 10-year event
Inflow = 12.71 cfs @ 12.15 hrs, Volume= 1.103 af
Primary = 12.71 cfs @ 12.15 hrs, Volume= 1.103 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP11:

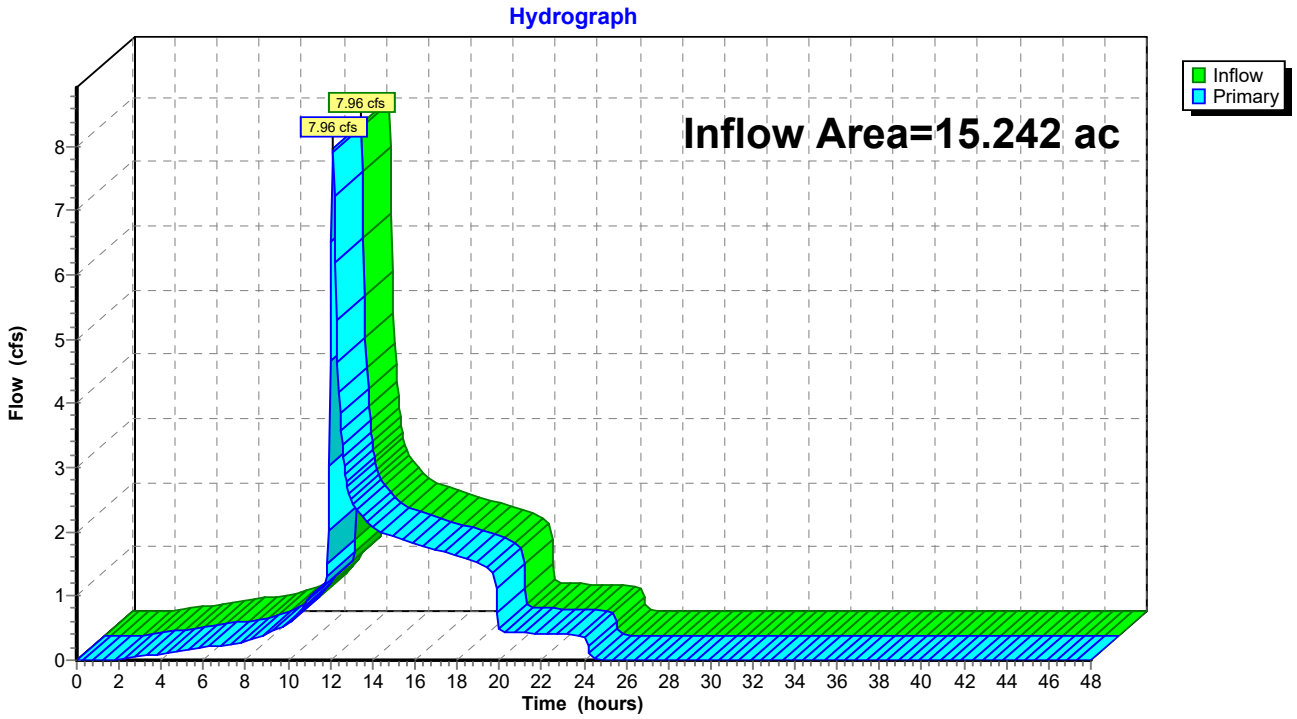


Summary for Link SP13:

Inflow Area = 15.242 ac, 17.24% Impervious, Inflow Depth = 1.45" for 10-year event
Inflow = 7.96 cfs @ 12.13 hrs, Volume= 1.847 af
Primary = 7.96 cfs @ 12.13 hrs, Volume= 1.847 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP13:

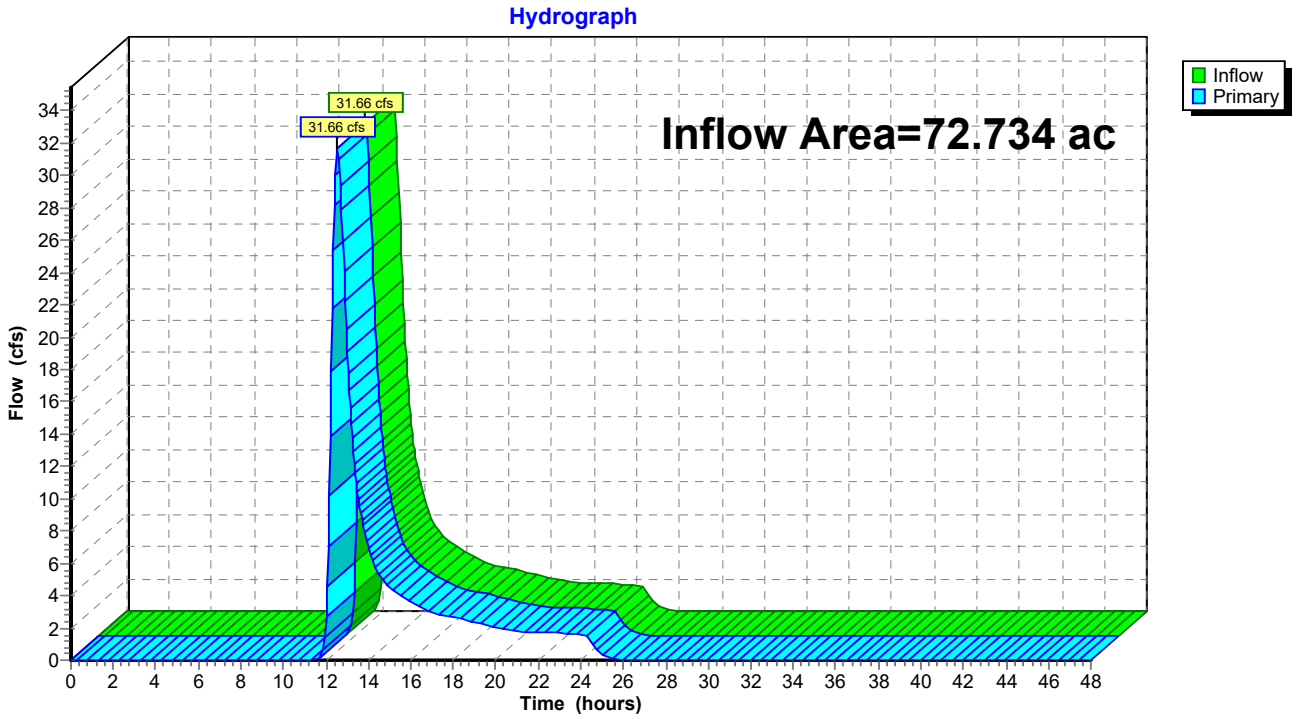


Summary for Link SP14:

Inflow Area = 72.734 ac, 0.42% Impervious, Inflow Depth = 0.85" for 10-year event
Inflow = 31.66 cfs @ 12.56 hrs, Volume= 5.152 af
Primary = 31.66 cfs @ 12.56 hrs, Volume= 5.152 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP14:

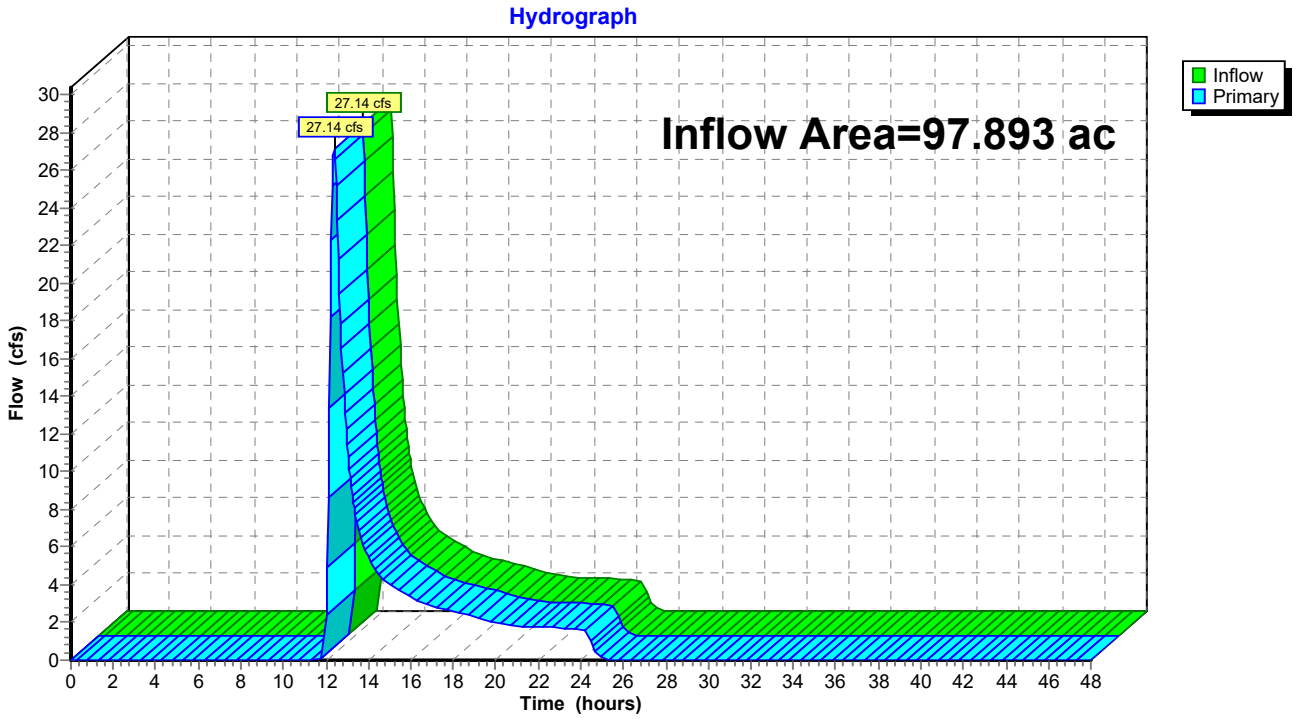


Summary for Link SP17:

Inflow Area = 97.893 ac, 1.18% Impervious, Inflow Depth = 0.53" for 10-year event
Inflow = 27.14 cfs @ 12.39 hrs, Volume= 4.335 af
Primary = 27.14 cfs @ 12.39 hrs, Volume= 4.335 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP17:

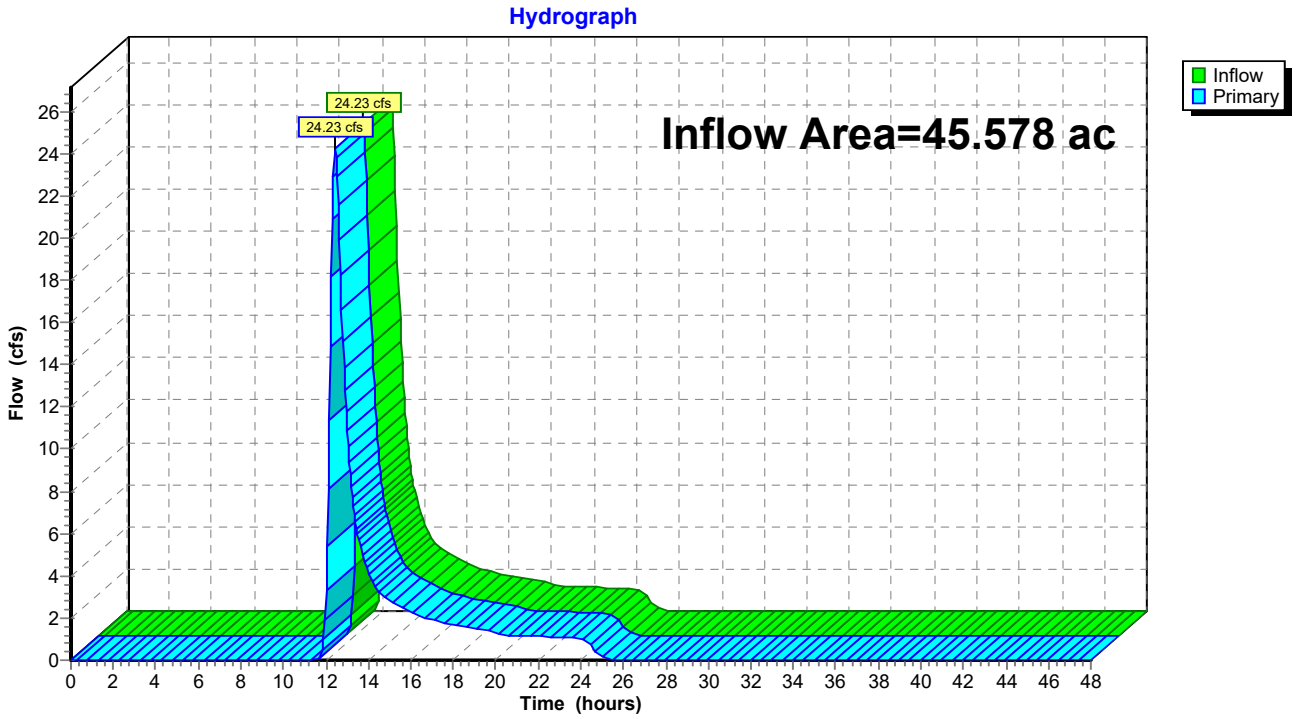


Summary for Link SP18:

Inflow Area = 45.578 ac, 0.74% Impervious, Inflow Depth = 0.90" for 10-year event
Inflow = 24.23 cfs @ 12.45 hrs, Volume= 3.423 af
Primary = 24.23 cfs @ 12.45 hrs, Volume= 3.423 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP18:

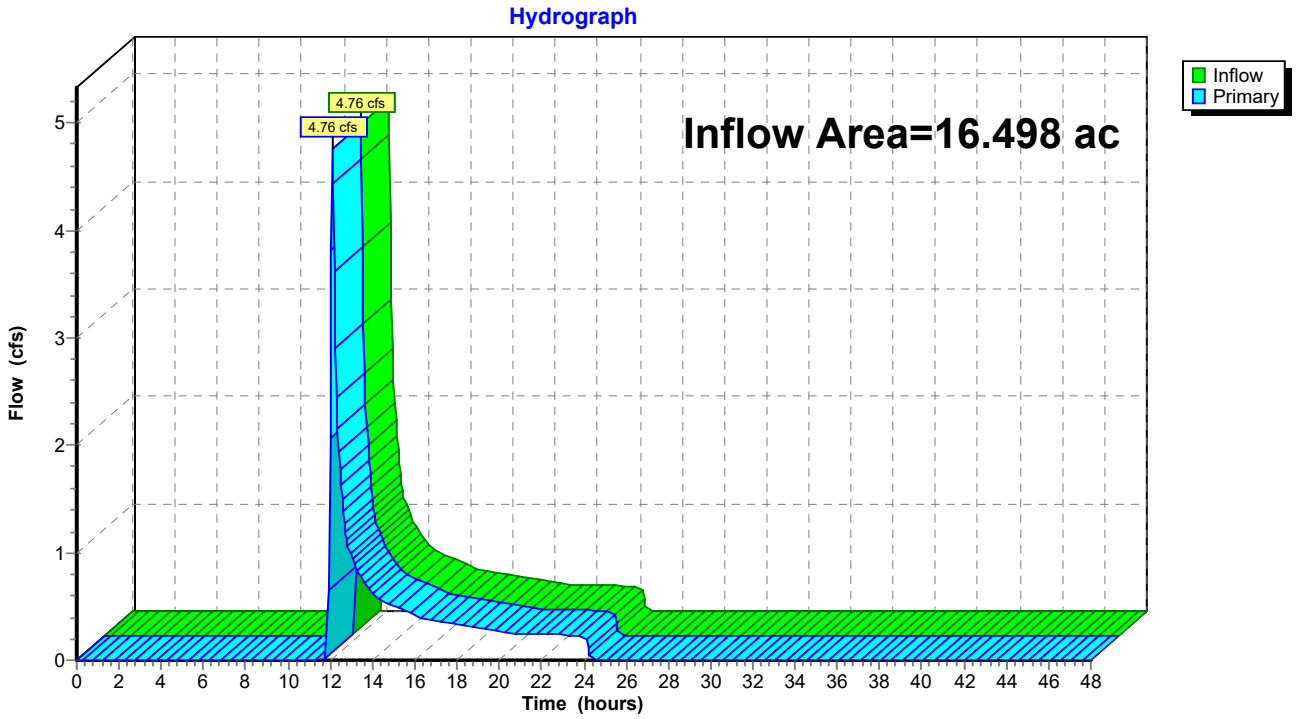


Summary for Link SP2:

Inflow Area = 16.498 ac, 0.00% Impervious, Inflow Depth = 0.38" for 10-year event
Inflow = 4.76 cfs @ 12.11 hrs, Volume= 0.523 af
Primary = 4.76 cfs @ 12.11 hrs, Volume= 0.523 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP2:

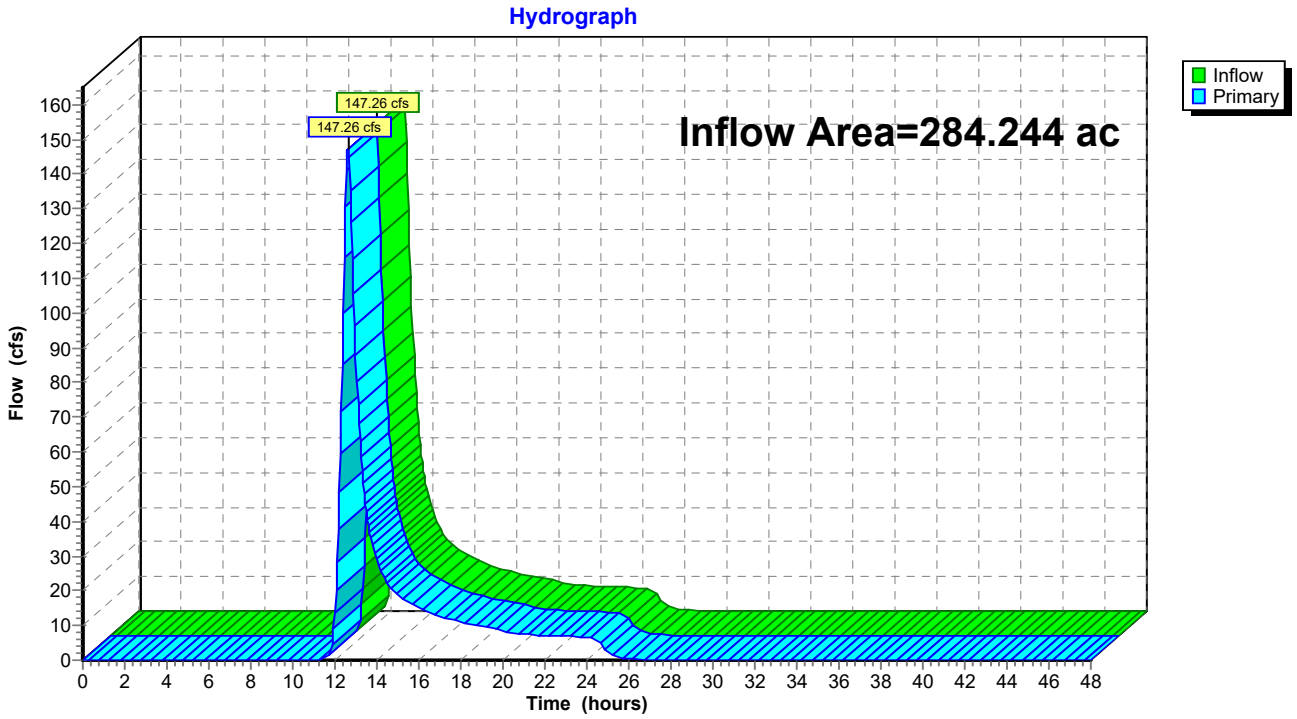


Summary for Link SP22:

Inflow Area = 284.244 ac, 1.82% Impervious, Inflow Depth = 0.92" for 10-year event
Inflow = 147.26 cfs @ 12.63 hrs, Volume= 21.891 af
Primary = 147.26 cfs @ 12.63 hrs, Volume= 21.891 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP22:

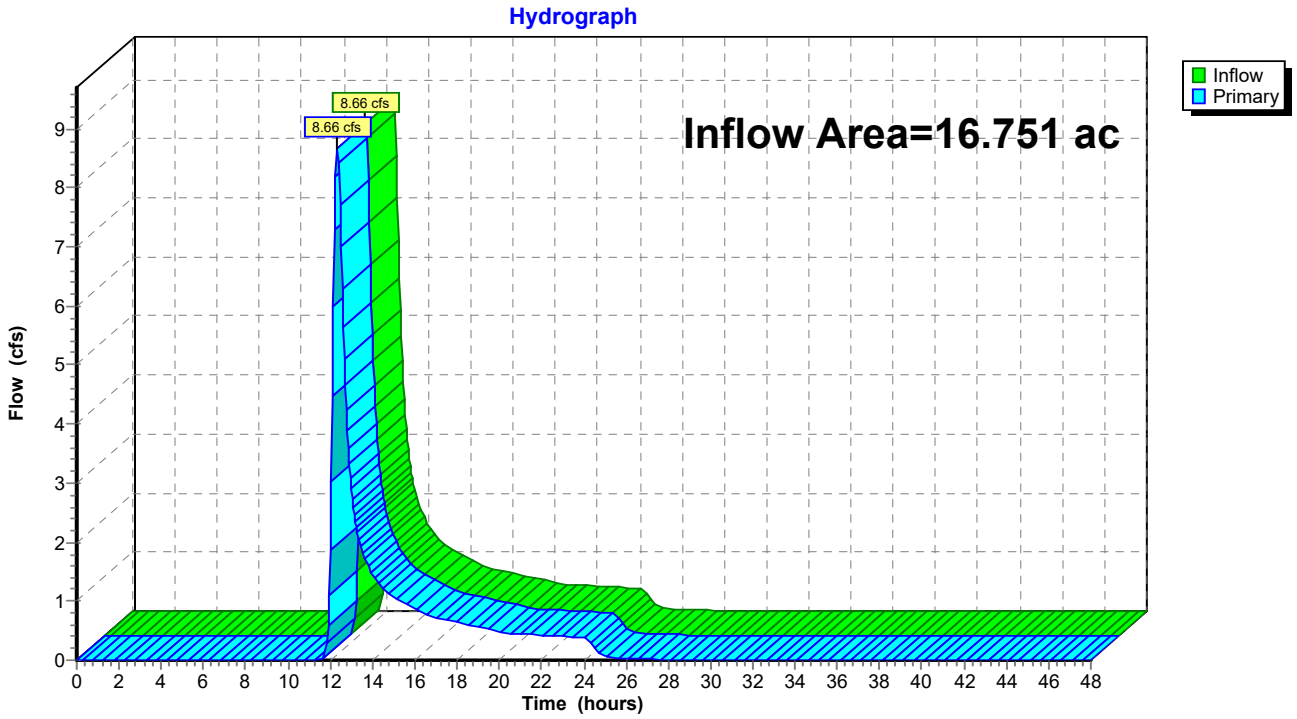


Summary for Link SP23:

Inflow Area = 16.751 ac, 2.31% Impervious, Inflow Depth = 0.86" for 10-year event
Inflow = 8.66 cfs @ 12.32 hrs, Volume= 1.203 af
Primary = 8.66 cfs @ 12.32 hrs, Volume= 1.203 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP23:

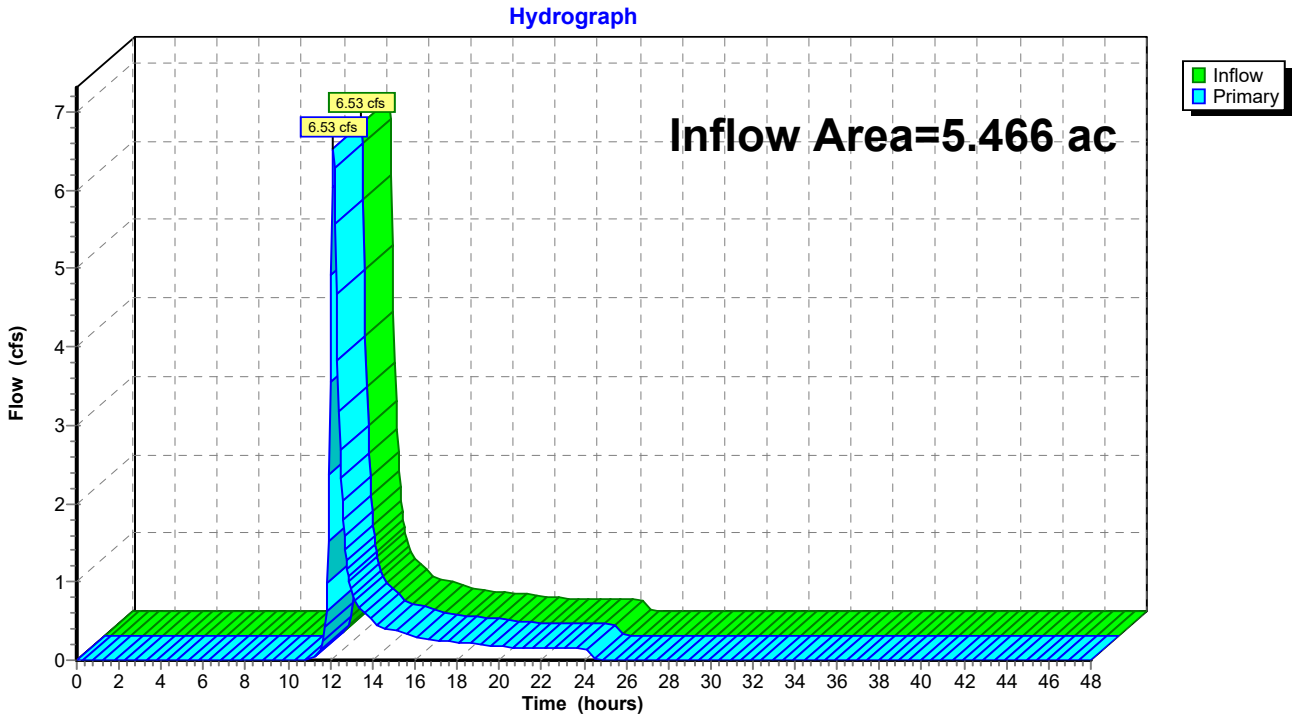


Summary for Link SP24:

Inflow Area = 5.466 ac, 7.70% Impervious, Inflow Depth = 1.18" for 10-year event
Inflow = 6.53 cfs @ 12.16 hrs, Volume= 0.537 af
Primary = 6.53 cfs @ 12.16 hrs, Volume= 0.537 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP24:

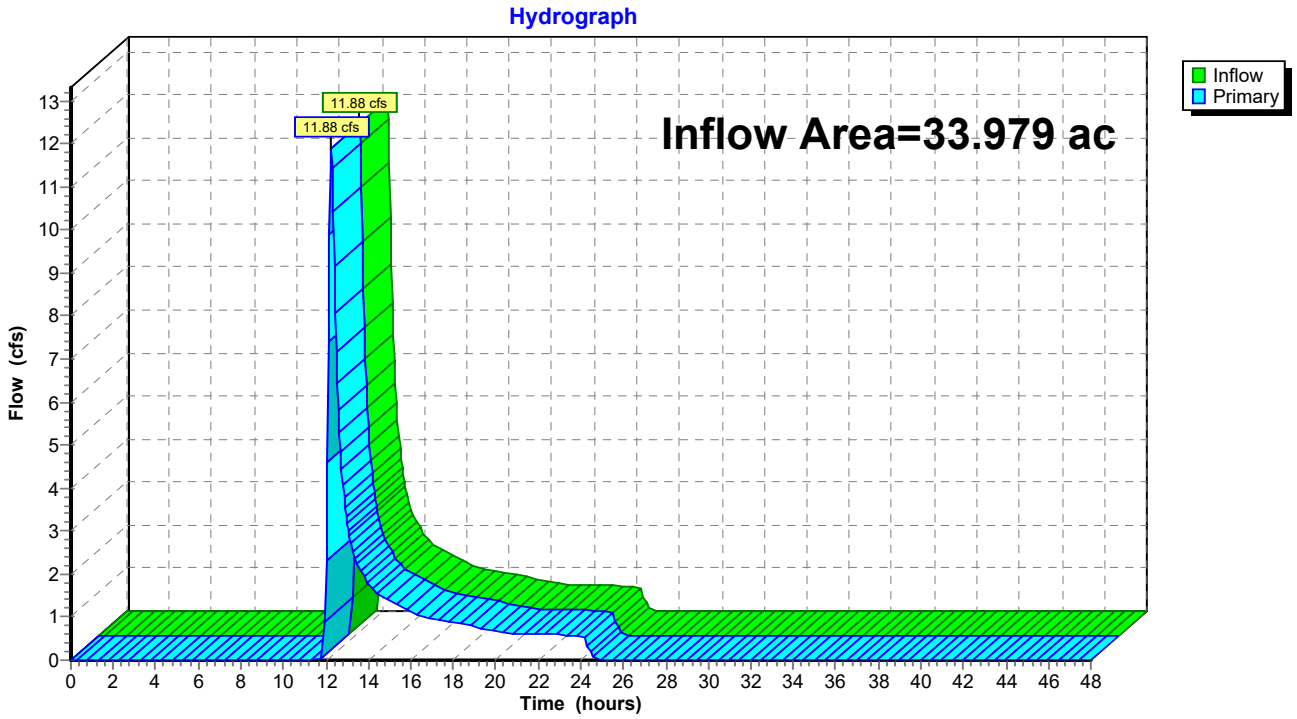


Summary for Link SP3:

Inflow Area = 33.979 ac, 0.00% Impervious, Inflow Depth = 0.53" for 10-year event
Inflow = 11.88 cfs @ 12.25 hrs, Volume= 1.505 af
Primary = 11.88 cfs @ 12.25 hrs, Volume= 1.505 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP3:

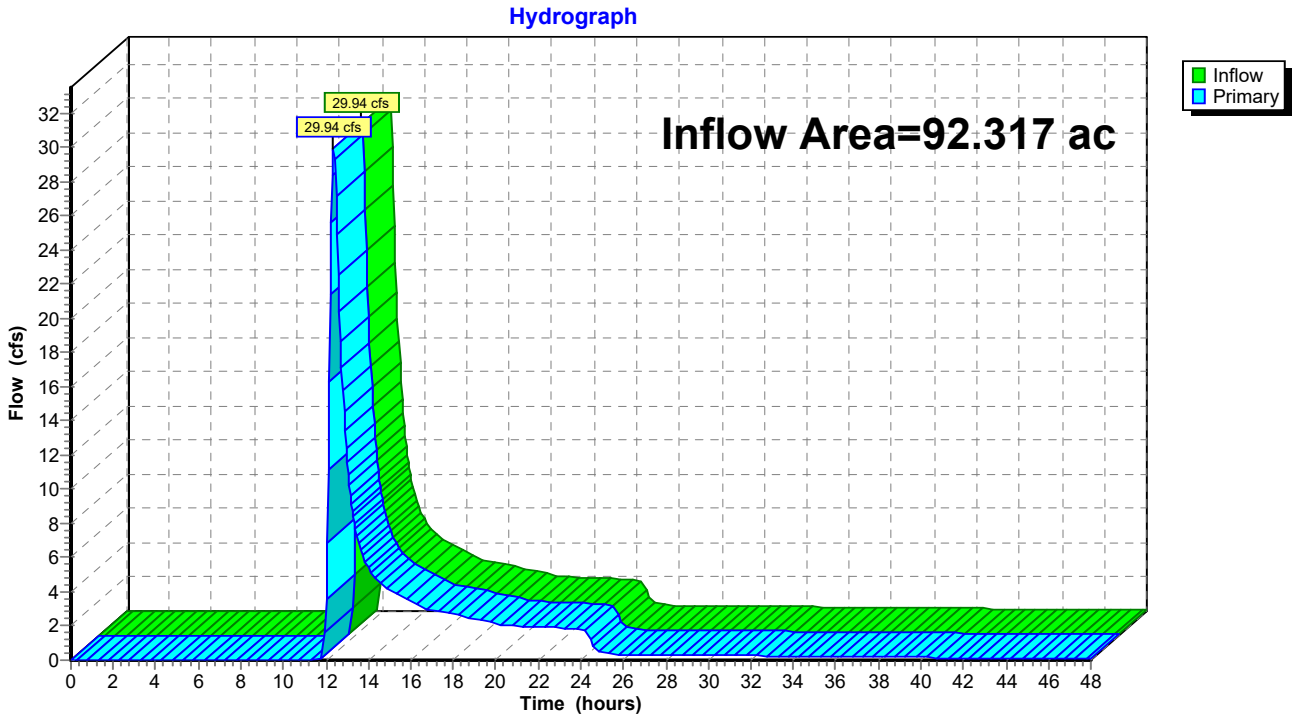


Summary for Link SP4:

Inflow Area = 92.317 ac, 0.28% Impervious, Inflow Depth > 0.65" for 10-year event
Inflow = 29.94 cfs @ 12.38 hrs, Volume= 4.995 af
Primary = 29.94 cfs @ 12.38 hrs, Volume= 4.995 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP4:

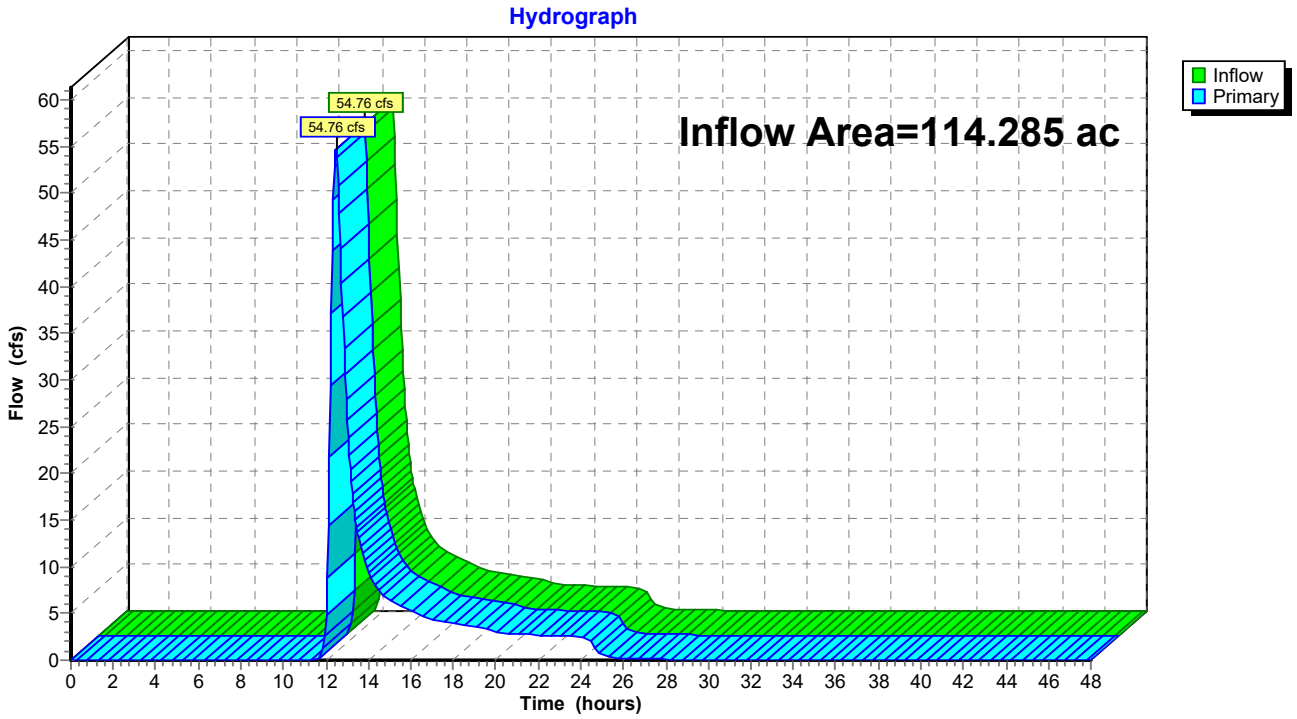


Summary for Link SP43:

Inflow Area = 114.285 ac, 0.15% Impervious, Inflow Depth > 0.83" for 10-year event
Inflow = 54.76 cfs @ 12.47 hrs, Volume= 7.926 af
Primary = 54.76 cfs @ 12.47 hrs, Volume= 7.926 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP43:

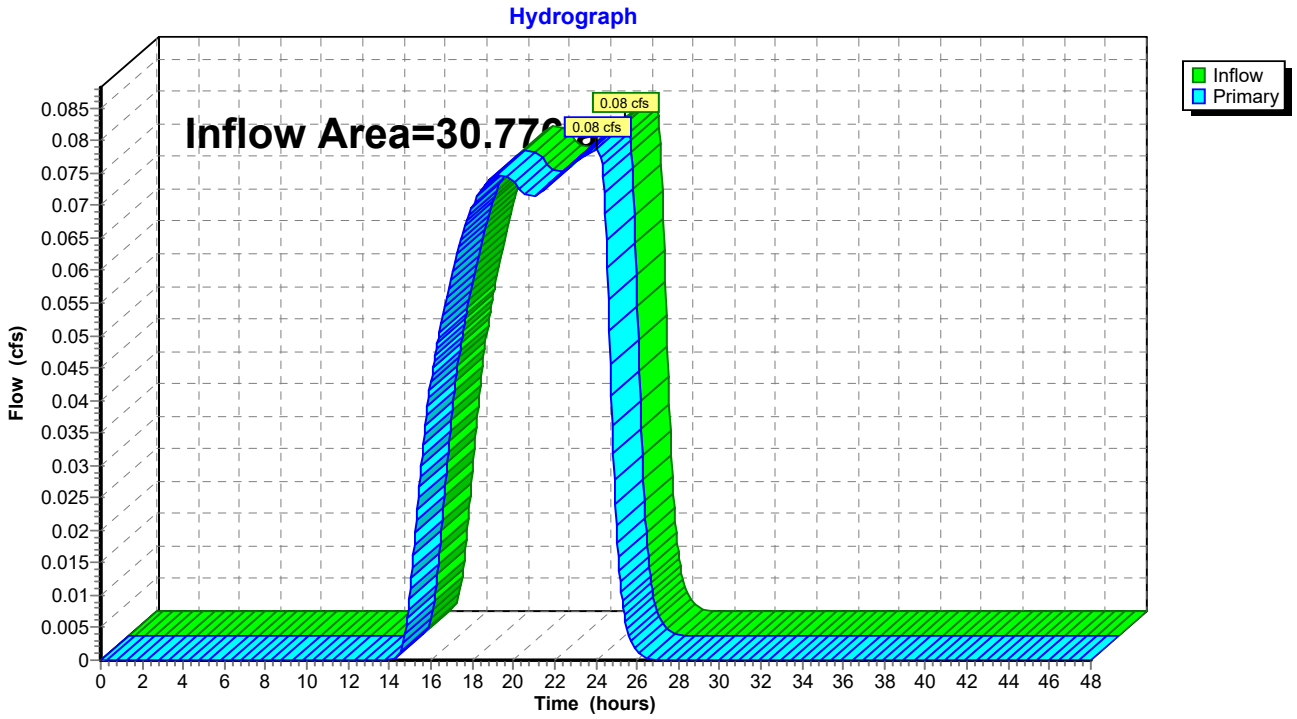


Summary for Link SP46:

Inflow Area = 30.776 ac, 0.00% Impervious, Inflow Depth = 0.02" for 10-year event
Inflow = 0.08 cfs @ 24.09 hrs, Volume= 0.054 af
Primary = 0.08 cfs @ 24.09 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP46:

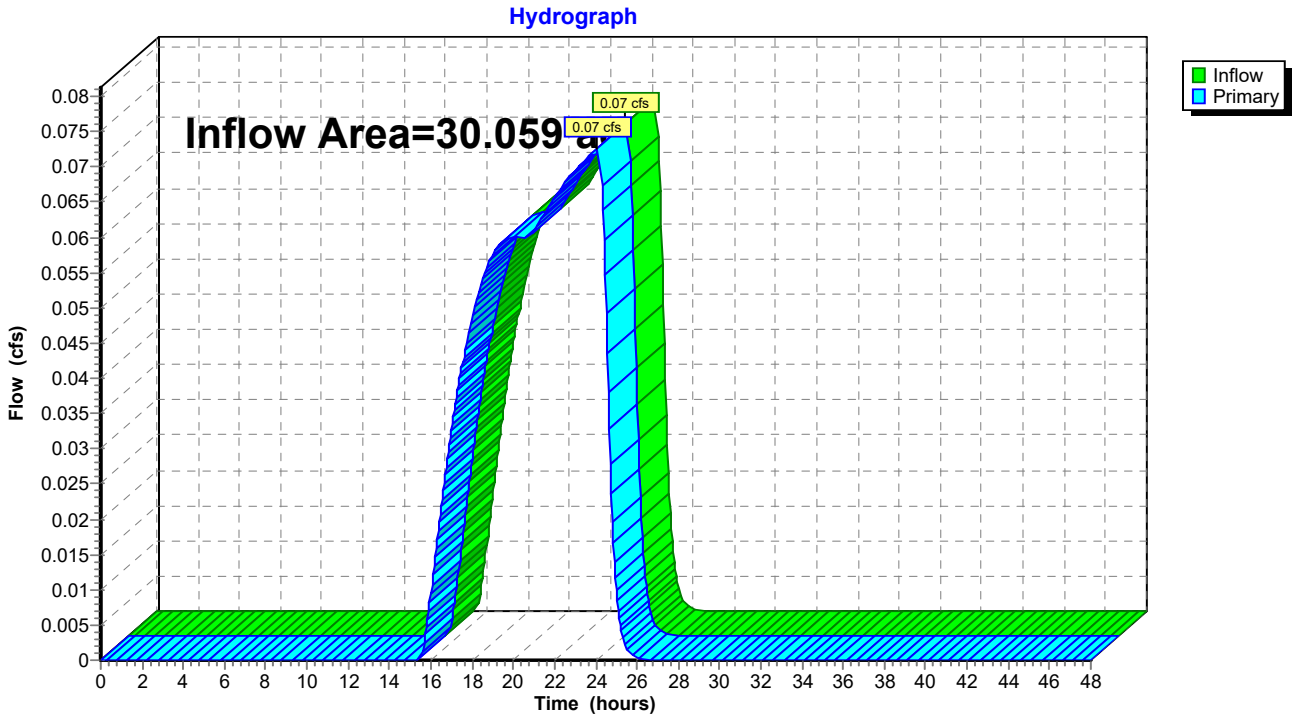


Summary for Link SP47:

Inflow Area = 30.059 ac, 1.25% Impervious, Inflow Depth = 0.02" for 10-year event
Inflow = 0.07 cfs @ 24.07 hrs, Volume= 0.040 af
Primary = 0.07 cfs @ 24.07 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP47:

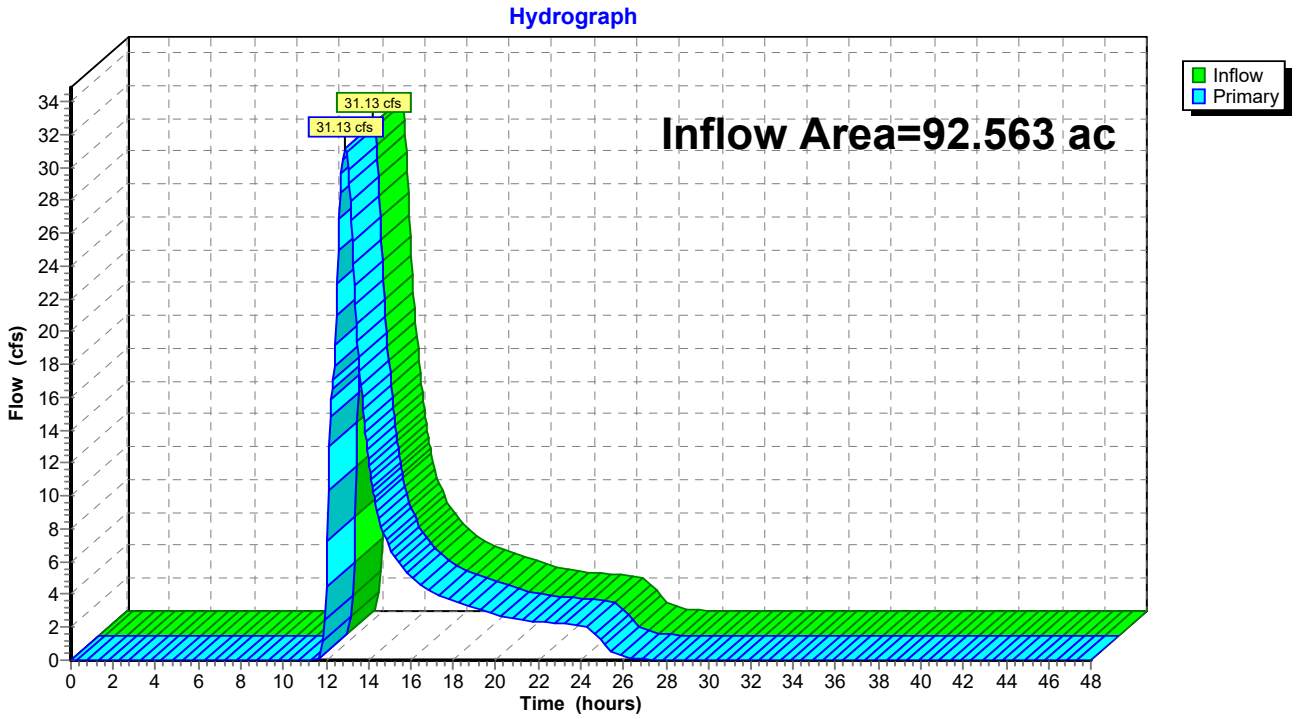


Summary for Link SP5:

Inflow Area = 92.563 ac, 0.00% Impervious, Inflow Depth = 0.90" for 10-year event
Inflow = 31.13 cfs @ 12.90 hrs, Volume= 6.928 af
Primary = 31.13 cfs @ 12.90 hrs, Volume= 6.928 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP5:

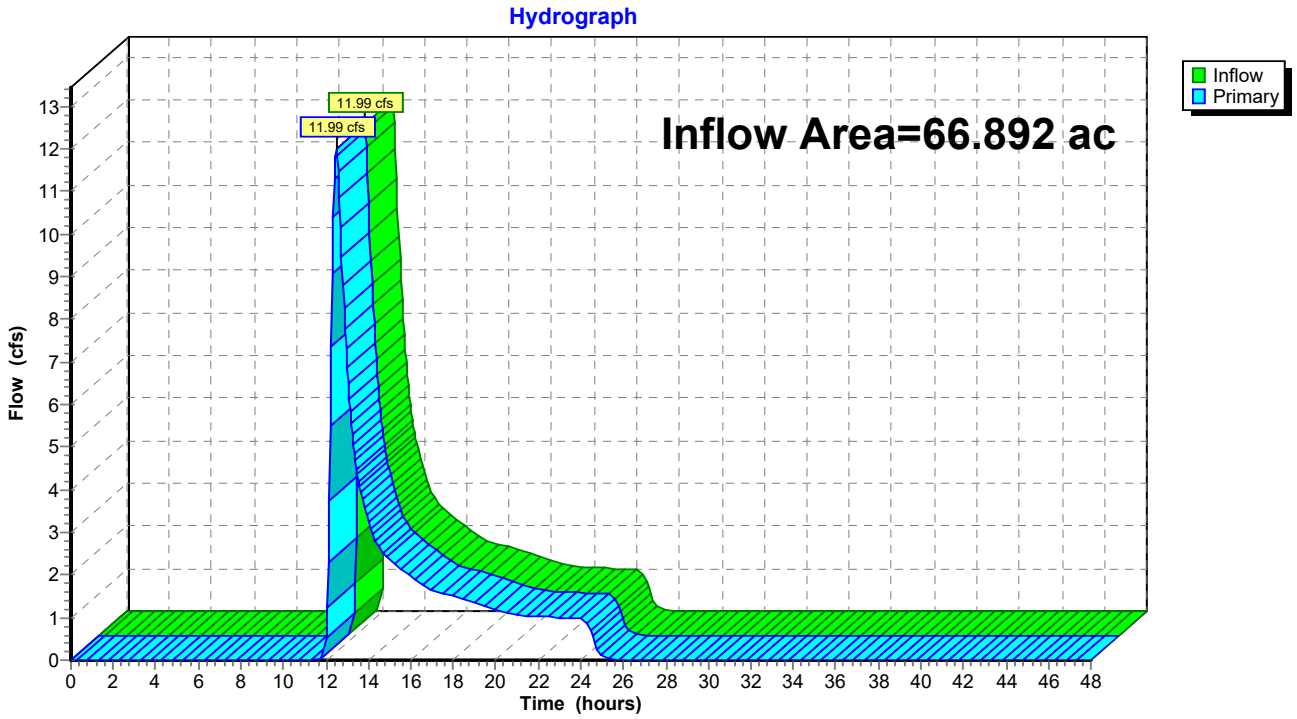


Summary for Link SP7:

Inflow Area = 66.892 ac, 0.00% Impervious, Inflow Depth = 0.42" for 10-year event
Inflow = 11.99 cfs @ 12.50 hrs, Volume= 2.352 af
Primary = 11.99 cfs @ 12.50 hrs, Volume= 2.352 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP7:

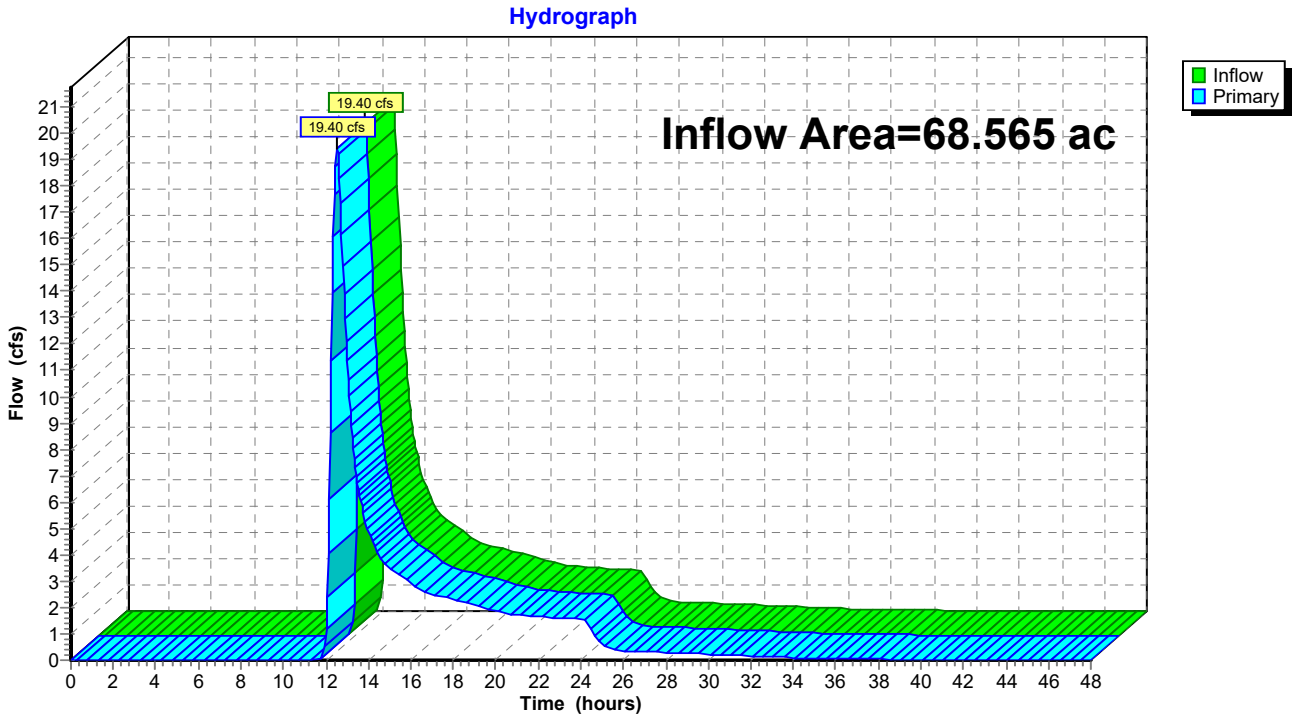


Summary for Link SP9:

Inflow Area = 68.565 ac, 1.11% Impervious, Inflow Depth > 0.69" for 10-year event
Inflow = 19.40 cfs @ 12.53 hrs, Volume= 3.943 af
Primary = 19.40 cfs @ 12.53 hrs, Volume= 3.943 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP9:



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Sub 1 Runoff Area=5.786 ac 0.00% Impervious Runoff Depth=1.43"
Flow Length=1,005' Tc=13.1 min CN=56 Runoff=10.41 cfs 0.691 af

Subcatchment2S: Sub 2 Runoff Area=16.498 ac 0.00% Impervious Runoff Depth=1.43"
Flow Length=1,307' Tc=14.1 min CN=56 Runoff=28.42 cfs 1.971 af

Subcatchment3S: Sub 3 Runoff Area=33.979 ac 0.00% Impervious Runoff Depth=1.74"
Flow Length=2,507' Tc=25.3 min CN=60 Runoff=52.70 cfs 4.930 af

Subcatchment4.1S: Runoff Area=15.089 ac 0.00% Impervious Runoff Depth=2.41"
Tc=6.0 min CN=68 Runoff=63.29 cfs 3.028 af

Subcatchment4S: Sub 4 Runoff Area=77.228 ac 0.34% Impervious Runoff Depth=1.98"
Flow Length=4,160' Tc=35.5 min CN=63 Runoff=111.51 cfs 12.762 af

Subcatchment5S: Sub 5 Runoff Area=17.299 ac 0.00% Impervious Runoff Depth=2.23"
Flow Length=1,946' Tc=24.6 min CN=66 Runoff=36.80 cfs 3.222 af

Subcatchment6S: Sub 6 Runoff Area=16.301 ac 0.00% Impervious Runoff Depth=2.23"
Flow Length=1,894' Tc=48.6 min CN=66 Runoff=21.70 cfs 3.036 af

Subcatchment7.1: Sub 7.1 Runoff Area=4.575 ac 0.00% Impervious Runoff Depth=1.66"
Flow Length=1,051' Tc=14.9 min CN=59 Runoff=9.21 cfs 0.634 af

Subcatchment7S: Sub 7 Runoff Area=62.317 ac 0.00% Impervious Runoff Depth=1.58"
Flow Length=2,117' Tc=40.9 min CN=58 Runoff=61.20 cfs 8.231 af

Subcatchment8S: Sub 8 Runoff Area=58.963 ac 0.00% Impervious Runoff Depth=2.50"
Flow Length=2,902' Tc=63.3 min CN=69 Runoff=73.45 cfs 12.263 af

Subcatchment9.1S: Sub 9.1 Runoff Area=8.972 ac 0.00% Impervious Runoff Depth=2.86"
Flow Length=873' Tc=34.1 min CN=73 Runoff=20.26 cfs 2.137 af

Subcatchment9S: Sub 9 Runoff Area=59.593 ac 1.28% Impervious Runoff Depth=1.98"
Flow Length=2,945' Tc=45.6 min CN=63 Runoff=71.86 cfs 9.848 af

Subcatchment10.1S: Sub 10.1 Runoff Area=2.860 ac 0.00% Impervious Runoff Depth=2.67"
Tc=18.7 min CN=71 Runoff=8.75 cfs 0.638 af

Subcatchment10S: Sub 10 Runoff Area=19.376 ac 5.62% Impervious Runoff Depth=2.77"
Flow Length=2,047' Tc=36.7 min CN=72 Runoff=40.15 cfs 4.466 af

Subcatchment11S: Sub 11 Runoff Area=17.595 ac 2.63% Impervious Runoff Depth=2.15"
Flow Length=1,622' Tc=19.0 min CN=65 Runoff=41.84 cfs 3.152 af

Subcatchment12S: Sub 12 Runoff Area=4.859 ac 53.67% Impervious Runoff Depth=5.36"
Tc=6.0 min CN=97 Runoff=38.33 cfs 2.172 af

Subcatchment13S: Sub 13 Runoff Area=10.383 ac 0.18% Impervious Runoff Depth=1.98"
Flow Length=849' Tc=17.7 min CN=63 Runoff=23.52 cfs 1.716 af

Subcatchment14S: Sub 14 Runoff Area=72.734 ac 0.42% Impervious Runoff Depth=2.32"
Flow Length=4,131' Tc=49.6 min CN=67 Runoff=99.71 cfs 14.067 af

Subcatchment17S: Sub 17 Runoff Area=97.893 ac 1.18% Impervious Runoff Depth=1.74"
Flow Length=3,526' Tc=35.1 min CN=60 Runoff=121.08 cfs 14.202 af

Subcatchment18S: Sub 18 Runoff Area=45.578 ac 0.74% Impervious Runoff Depth=2.41"
Flow Length=2,382' Tc=42.2 min CN=68 Runoff=73.21 cfs 9.145 af

Subcatchment19S: Sub 19 Runoff Area=28.407 ac 0.54% Impervious Runoff Depth=2.77"
Flow Length=1,760' Tc=30.4 min CN=72 Runoff=66.82 cfs 6.547 af

Subcatchment20S: Sub 20 Runoff Area=70.525 ac 0.78% Impervious Runoff Depth=2.23"
Flow Length=1,829' Tc=21.6 min UI Adjusted CN=66 Runoff=162.87 cfs 13.134 af

Subcatchment21S: Sub 21 Runoff Area=123.016 ac 3.33% Impervious Runoff Depth=2.32"
Flow Length=4,201' Tc=42.5 min CN=67 Runoff=188.59 cfs 23.791 af

Subcatchment22S: Sub 22 Runoff Area=62.296 ac 0.60% Impervious Runoff Depth=2.77"
Flow Length=1,648' Tc=34.6 min CN=72 Runoff=134.31 cfs 14.358 af

Subcatchment23.1: Sub 23.1 Runoff Area=3.682 ac 0.00% Impervious Runoff Depth=2.58"
Tc=6.0 min CN=70 Runoff=16.42 cfs 0.793 af

Subcatchment23S: Sub 23 Runoff Area=13.069 ac 2.96% Impervious Runoff Depth=2.41"
Flow Length=1,297' Tc=33.2 min UI Adjusted CN=68 Runoff=24.81 cfs 2.622 af

Subcatchment24S: Sub 24 Runoff Area=5.466 ac 7.70% Impervious Runoff Depth=2.86"
Flow Length=1,059' Tc=21.5 min UI Adjusted CN=73 Runoff=16.56 cfs 1.302 af

Subcatchment43: Subcat 43 Runoff Area=34.065 ac 0.27% Impervious Runoff Depth=2.67"
Flow Length=2,795' Tc=40.7 min CN=71 Runoff=63.14 cfs 7.593 af

Subcatchment44.1S: 44.1S Runoff Area=6.425 ac 0.00% Impervious Runoff Depth=3.33"
Tc=6.0 min CN=78 Runoff=36.50 cfs 1.784 af

Subcatchment44S: 44S Runoff Area=39.864 ac 0.00% Impervious Runoff Depth=2.58"
Flow Length=2,470' Tc=41.7 min CN=70 Runoff=69.96 cfs 8.587 af

Subcatchment45: Subcat 45 Runoff Area=33.931 ac 0.22% Impervious Runoff Depth=1.66"
Flow Length=2,198' Tc=29.8 min CN=59 Runoff=44.42 cfs 4.700 af

Subcatchment46.1S: 46.1S Runoff Area=238,360 sf 0.00% Impervious Runoff Depth=0.69"
Flow Length=719' Tc=31.5 min CN=45 Runoff=1.83 cfs 0.316 af

Subcatchment46S: Subcat 46 Runoff Area=1,102,260 sf 0.00% Impervious Runoff Depth=0.47"
Flow Length=1,524' Tc=54.0 min CN=41 Runoff=3.05 cfs 0.988 af

Subcatchment47S: Sub 47 Runoff Area=1,309,372 sf 1.25% Impervious Runoff Depth=0.42"
Flow Length=1,895' Tc=43.3 min UI Adjusted CN=40 Runoff=3.23 cfs 1.046 af

Reach 6R: W-NSD-35 Avg. Flow Depth=1.02' Max Vel=4.85 fps Inflow=73.45 cfs 12.263 af
n=0.035 L=1,882.0' S=0.0276 '/' Capacity=25.08 cfs Outflow=71.69 cfs 12.263 af

Reach 13.1R: Avg. Flow Depth=0.09' Max Vel=2.32 fps Inflow=1.61 cfs 2.173 af
n=0.030 L=165.0' S=0.0727 '/' Capacity=48.67 cfs Outflow=1.61 cfs 2.173 af

Reach 13.2R: Avg. Flow Depth=0.14' Max Vel=4.87 fps Inflow=1.61 cfs 2.173 af
n=0.035 L=232.0' S=0.2069 '/' Capacity=1,230.81 cfs Outflow=1.61 cfs 2.173 af

Reach 20.1R: S-KCF-6 Avg. Flow Depth=3.05' Max Vel=3.98 fps Inflow=223.20 cfs 19.682 af
n=0.030 L=1,405.0' S=0.0028 '/' Capacity=141.69 cfs Outflow=204.13 cfs 19.682 af

Reach 20.2R: Avg. Flow Depth=2.23' Max Vel=6.07 fps Inflow=204.13 cfs 19.682 af
n=0.035 L=1,322.0' S=0.0121 '/' Capacity=250.41 cfs Outflow=197.64 cfs 19.682 af

Reach 22.1R: S-KCF-5 Avg. Flow Depth=2.38' Max Vel=4.88 fps Inflow=188.59 cfs 23.791 af
n=0.030 L=665.0' S=0.0060 '/' Capacity=89.91 cfs Outflow=186.82 cfs 23.791 af

Reach 22.2R: Avg. Flow Depth=4.26' Max Vel=5.13 fps Inflow=384.08 cfs 43.473 af
n=0.035 L=707.0' S=0.0075 '/' Capacity=86.27 cfs Outflow=378.09 cfs 43.473 af

Reach 44R: Avg. Flow Depth=1.95' Max Vel=4.48 fps Inflow=63.14 cfs 7.593 af
n=0.035 L=498.0' S=0.0321 '/' Capacity=8.70 cfs Outflow=62.62 cfs 7.593 af

Reach 45R: Avg. Flow Depth=2.58' Max Vel=6.56 fps Inflow=132.17 cfs 16.180 af
n=0.035 L=537.0' S=0.0372 '/' Capacity=16.21 cfs Outflow=131.32 cfs 16.180 af

Pond 4.1P: 4.1P Peak Elev=494.62' Storage=81,527 cf Inflow=63.29 cfs 3.028 af
Primary=2.43 cfs 2.225 af Secondary=0.00 cfs 0.000 af Outflow=2.43 cfs 2.225 af

Pond 7.1P: Peak Elev=515.02' Storage=26,225 cf Inflow=9.21 cfs 0.634 af
Primary=0.19 cfs 0.037 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.037 af

Pond 9.1P: 9.1P Peak Elev=469.81' Storage=38,567 cf Inflow=20.26 cfs 2.137 af
Primary=5.43 cfs 1.623 af Secondary=4.63 cfs 0.291 af Outflow=10.06 cfs 1.914 af

Pond 10.1P: 10.1P Peak Elev=569.76' Storage=11,059 cf Inflow=8.75 cfs 0.638 af
Primary=3.35 cfs 0.427 af Secondary=0.00 cfs 0.000 af Outflow=3.35 cfs 0.427 af

Pond 12P: 12P Peak Elev=508.38' Storage=44,248 cf Inflow=38.33 cfs 2.172 af
8.0" Round Culvert n=0.013 L=172.7' S=0.0058 '/' Outflow=1.61 cfs 2.173 af

Pond 23.1P: 23.1P Peak Elev=494.45' Storage=10,288 cf Inflow=16.42 cfs 0.793 af
Primary=13.34 cfs 0.705 af Secondary=0.00 cfs 0.000 af Outflow=13.34 cfs 0.705 af

Pond 44.1P: 44.1P Peak Elev=428.54' Storage=54,864 cf Inflow=36.50 cfs 1.784 af
Primary=0.78 cfs 1.035 af Secondary=0.20 cfs 0.048 af Outflow=0.98 cfs 1.083 af

Pond 46.1P: 46.1P Peak Elev=355.16' Storage=8,765 cf Inflow=1.83 cfs 0.316 af
Primary=0.17 cfs 0.171 af Secondary=0.00 cfs 0.000 af Outflow=0.17 cfs 0.171 af

Link SP1: Inflow=10.41 cfs 0.691 af
Primary=10.41 cfs 0.691 af

Link SP10: Inflow=43.49 cfs 4.893 af
Primary=43.49 cfs 4.893 af

Link SP11: Inflow=41.84 cfs 3.152 af
Primary=41.84 cfs 3.152 af

Link SP13: Inflow=25.09 cfs 3.889 af
Primary=25.09 cfs 3.889 af

Link SP14: Inflow=99.71 cfs 14.067 af
Primary=99.71 cfs 14.067 af

Link SP17: Inflow=121.08 cfs 14.202 af
Primary=121.08 cfs 14.202 af

Link SP18: Inflow=73.21 cfs 9.145 af
Primary=73.21 cfs 9.145 af

Link SP2: Inflow=28.42 cfs 1.971 af
Primary=28.42 cfs 1.971 af

Link SP22: Inflow=474.86 cfs 57.831 af
Primary=474.86 cfs 57.831 af

Link SP23: Inflow=27.45 cfs 3.328 af
Primary=27.45 cfs 3.328 af

Link SP24: Inflow=16.56 cfs 1.302 af
Primary=16.56 cfs 1.302 af

Link SP3: Inflow=52.70 cfs 4.930 af
Primary=52.70 cfs 4.930 af

Link SP4: Inflow=112.09 cfs 14.988 af
Primary=112.09 cfs 14.988 af

Link SP43: Inflow=165.50 cfs 21.963 af
Primary=165.50 cfs 21.963 af

Link SP46: Inflow=3.05 cfs 1.159 af
Primary=3.05 cfs 1.159 af

Link SP47: Inflow=3.23 cfs 1.046 af
Primary=3.23 cfs 1.046 af

Link SP5: Inflow=93.75 cfs 18.521 af
Primary=93.75 cfs 18.521 af

Link SP7: Inflow=61.20 cfs 8.268 af
Primary=61.20 cfs 8.268 af

Link SP9: Inflow=77.77 cfs 11.762 af
Primary=77.77 cfs 11.762 af

Total Runoff Area = 1,129.459 ac Runoff Volume = 199.873 af Average Runoff Depth = 2.12"
98.80% Pervious = 1,115.941 ac 1.20% Impervious = 13.519 ac

Summary for Subcatchment 1S: Sub 1

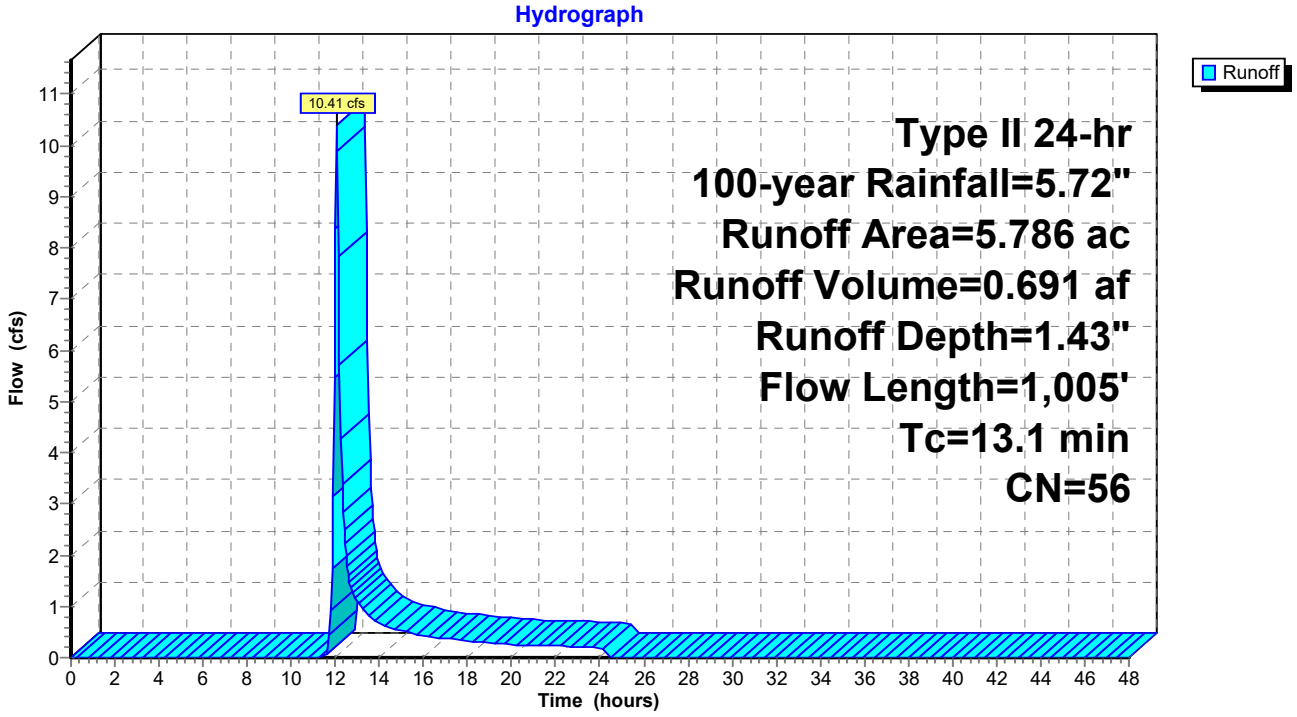
Runoff = 10.41 cfs @ 12.07 hrs, Volume= 0.691 af, Depth= 1.43"
Routed to Link SP1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
1.637	58	Meadow, non-grazed, HSG B
4.149	55	Woods, Good, HSG B
5.786	56	Weighted Average
5.786		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0620	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.9	427	0.2390	2.44		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.0	263	0.0980	2.19		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	215	0.4050	3.18		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
13.1	1,005	Total			

Subcatchment 1S: Sub 1



Summary for Subcatchment 2S: Sub 2

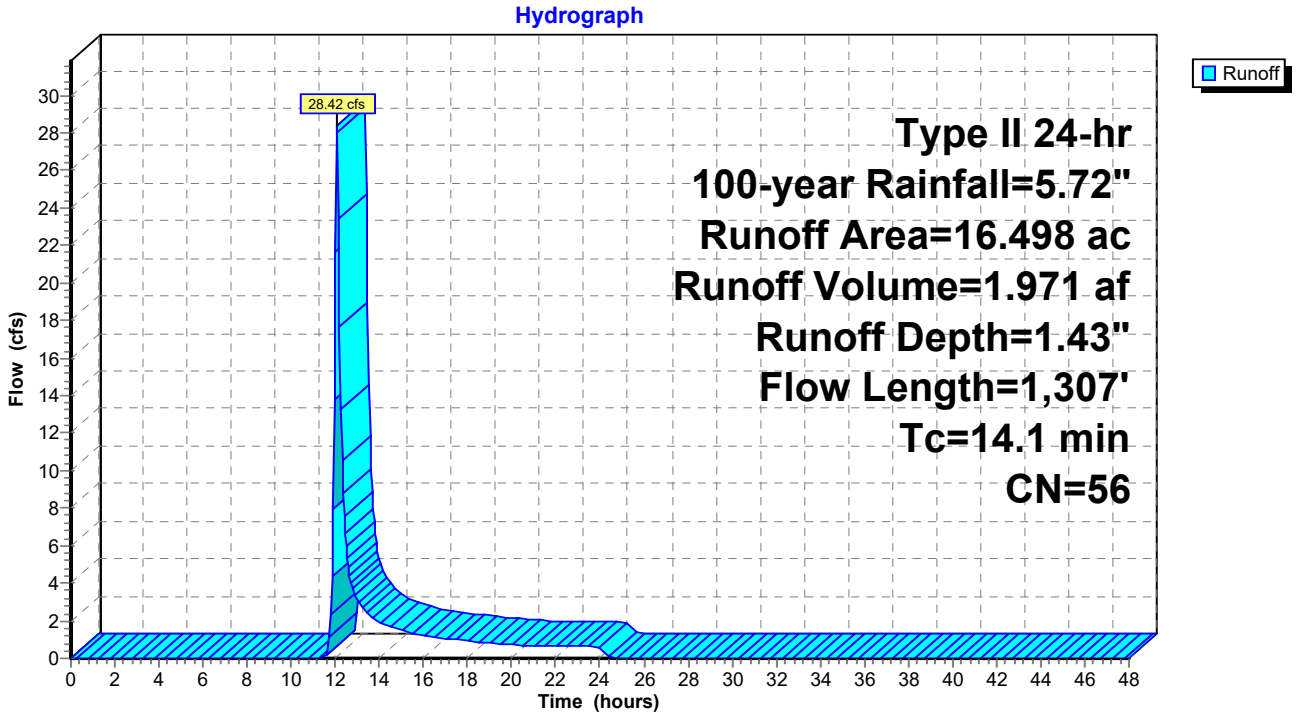
Runoff = 28.42 cfs @ 12.08 hrs, Volume= 1.971 af, Depth= 1.43"
Routed to Link SP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.124	30	Meadow, non-grazed, HSG A
8.883	58	Meadow, non-grazed, HSG B
7.491	55	Woods, Good, HSG B
16.498	56	Weighted Average
16.498		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1010	0.29		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.8	407	0.2420	2.46		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	225	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	169	0.1830	2.14		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	113	0.5100	3.57		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.2	293	0.0220	2.22		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
14.1	1,307	Total			

Subcatchment 2S: Sub 2



Summary for Subcatchment 3S: Sub 3

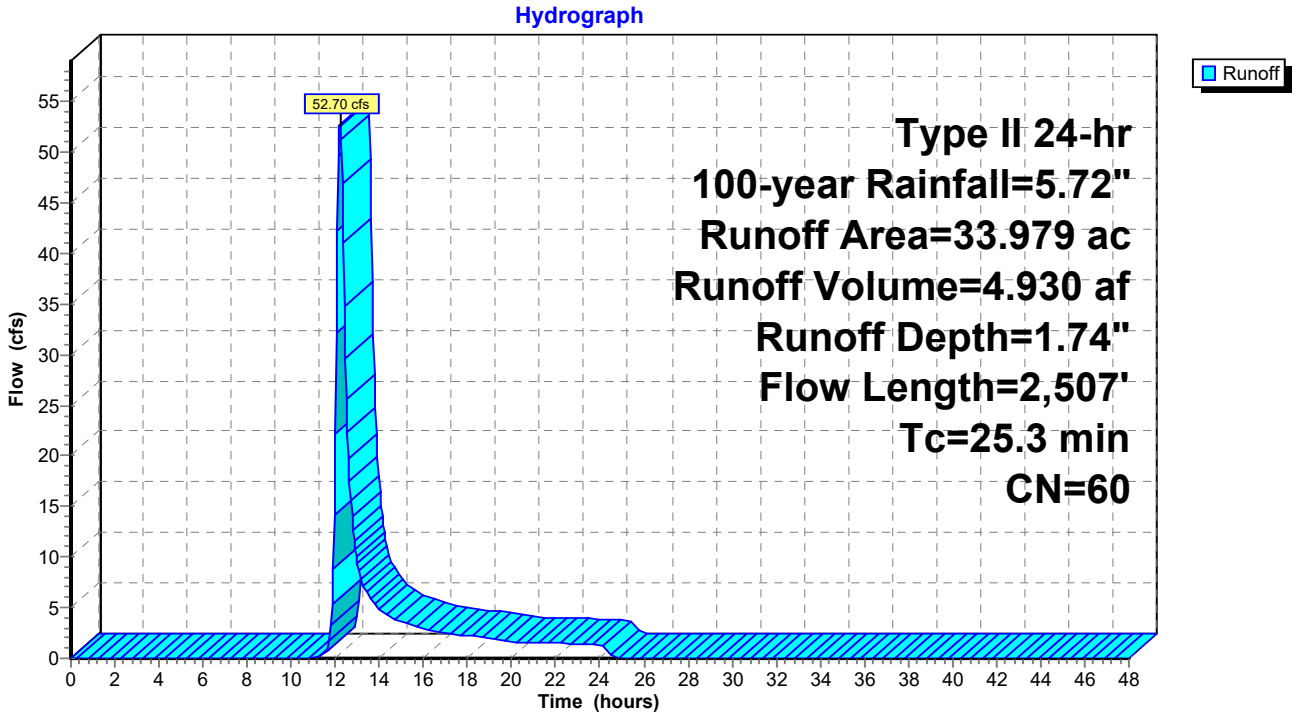
Runoff = 52.70 cfs @ 12.21 hrs, Volume= 4.930 af, Depth= 1.74"
Routed to Link SP3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
18.697	58	Meadow, non-grazed, HSG B
7.336	71	Meadow, non-grazed, HSG C
7.021	55	Woods, Good, HSG B
0.032	70	Woods, Good, HSG C
0.530	96	Gravel surface, HSG A
0.363	30	Meadow, non-grazed, HSG A
33.979	60	Weighted Average
33.979		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.0400	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
9.4	1,002	0.0640	1.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	337	0.0940	1.53		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.5	632		4.29		**Direct Entry, CF**
1.3	436		5.59		**Direct Entry, CF**
25.3	2,507	Total			

Subcatchment 3S: Sub 3



Summary for Subcatchment 4.1S:

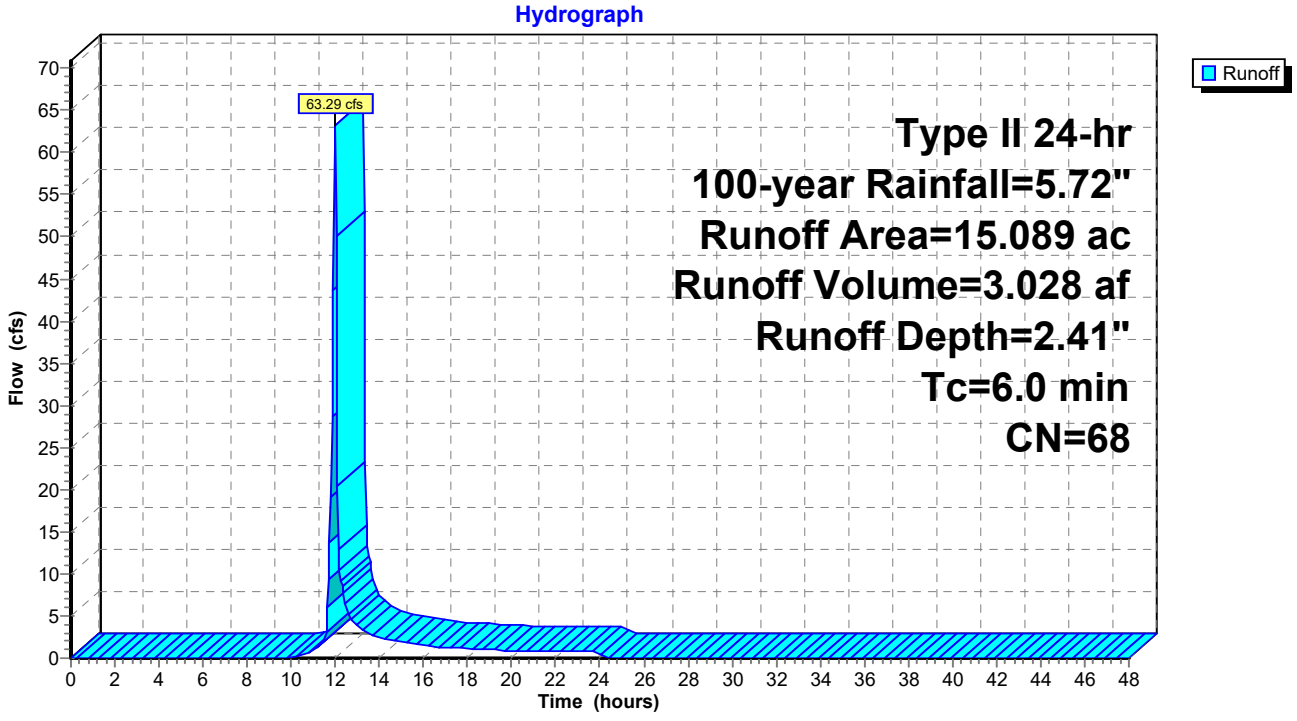
Runoff = 63.29 cfs @ 11.98 hrs, Volume= 3.028 af, Depth= 2.41"
Routed to Pond 4.1P : 4.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	10.486	71	Meadow, non-grazed, HSG C
*	0.460	96	Gravel
	4.143	58	Meadow, non-grazed, HSG B
	15.089	68	Weighted Average
	15.089		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4.1S:



Summary for Subcatchment 4S: Sub 4

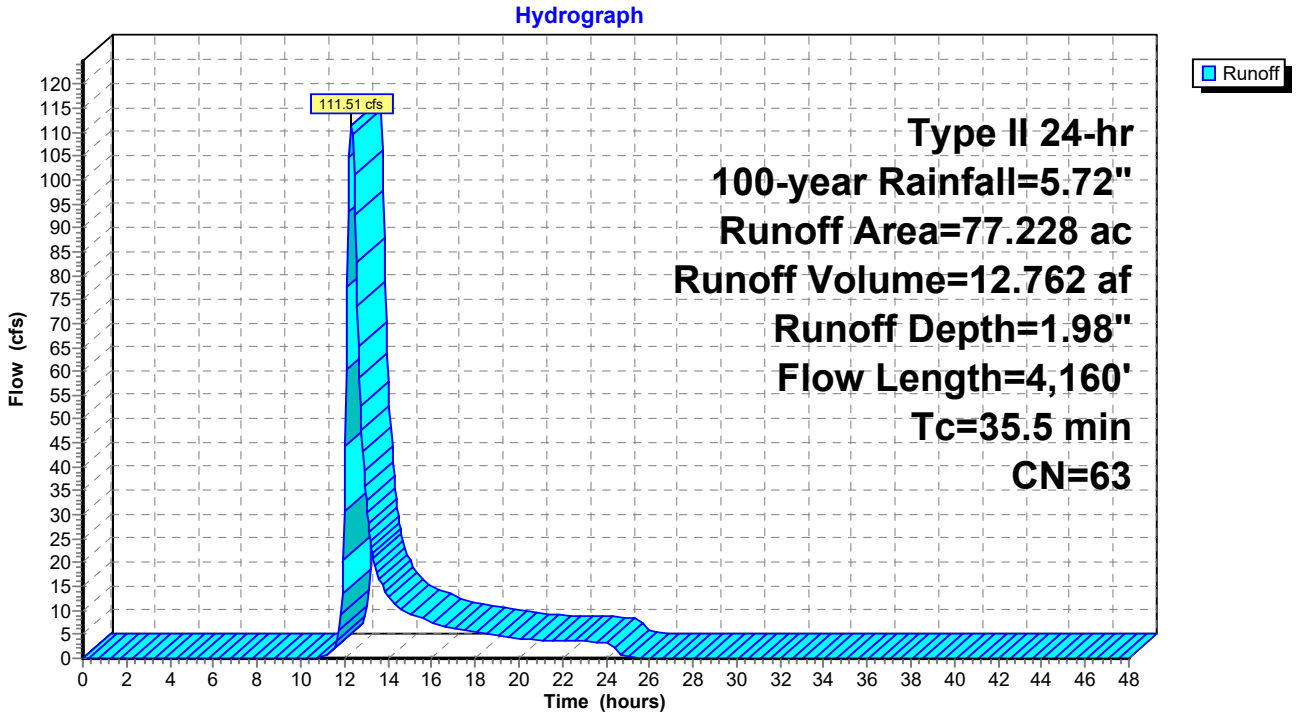
Runoff = 111.51 cfs @ 12.33 hrs, Volume= 12.762 af, Depth= 1.98"
Routed to Link SP4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	0.192	48	Brush, Good, HSG B
*	1.316	96	Gravel surface
*	0.259	98	Unconnected roofs
	0.393	30	Meadow, non-grazed, HSG A
	37.390	58	Meadow, non-grazed, HSG B
	23.983	71	Meadow, non-grazed, HSG C
	10.293	55	Woods, Good, HSG B
	3.402	70	Woods, Good, HSG C
	77.228	63	Weighted Average
	76.969		99.66% Pervious Area
	0.259		0.34% Impervious Area
	0.259		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.1900	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
1.8	295	0.1550	2.76		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.1	1,344	0.0350	1.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	2,421		6.02		**Direct Entry, CF**
35.5	4,160	Total			

Subcatchment 4S: Sub 4



Summary for Subcatchment 5S: Sub 5

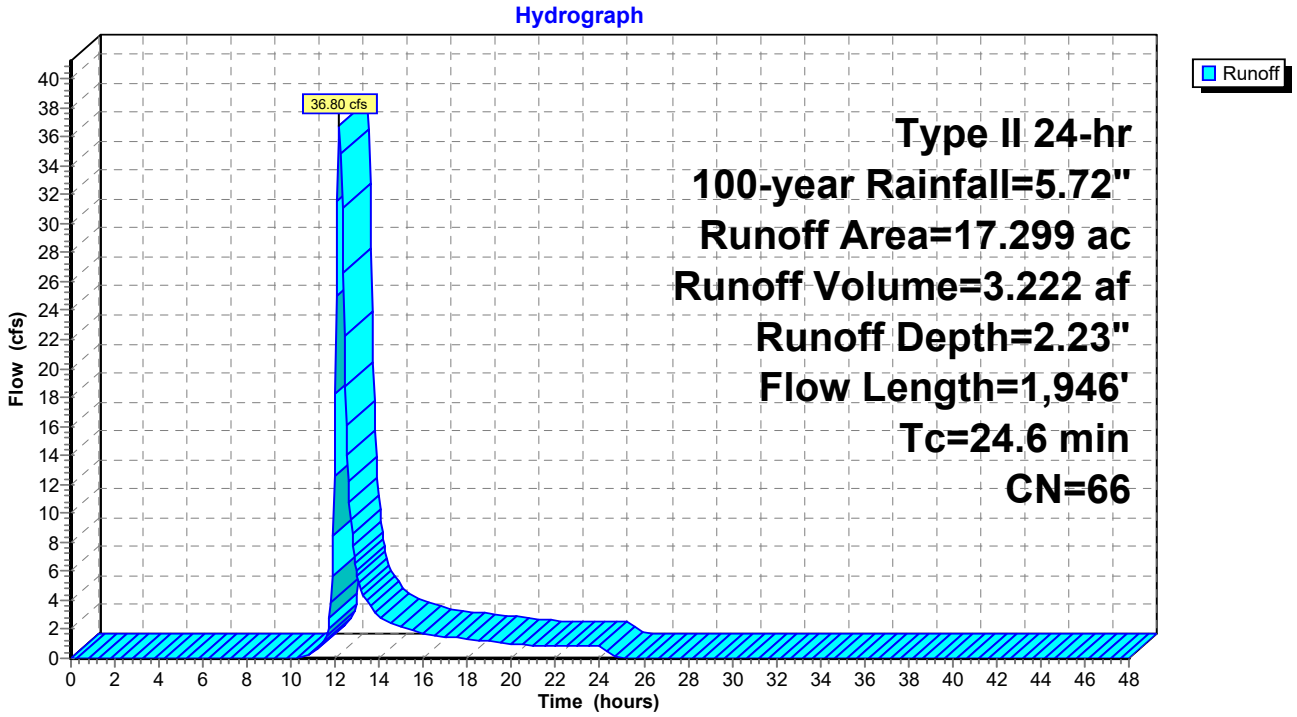
Runoff = 36.80 cfs @ 12.19 hrs, Volume= 3.222 af, Depth= 2.23"
Routed to Link SP5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
6.510	58	Meadow, non-grazed, HSG B
8.386	71	Meadow, non-grazed, HSG C
0.686	55	Woods, Good, HSG B
1.558	70	Woods, Good, HSG C
0.159	96	Gravel surface, HSG A
17.299	66	Weighted Average
17.299		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	100	0.0220	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.9	607	0.0440	1.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	195	0.0780	1.40		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.7	1,044		3.70		**Direct Entry, CF**
24.6	1,946	Total			

Subcatchment 5S: Sub 5



Summary for Subcatchment 6S: Sub 6

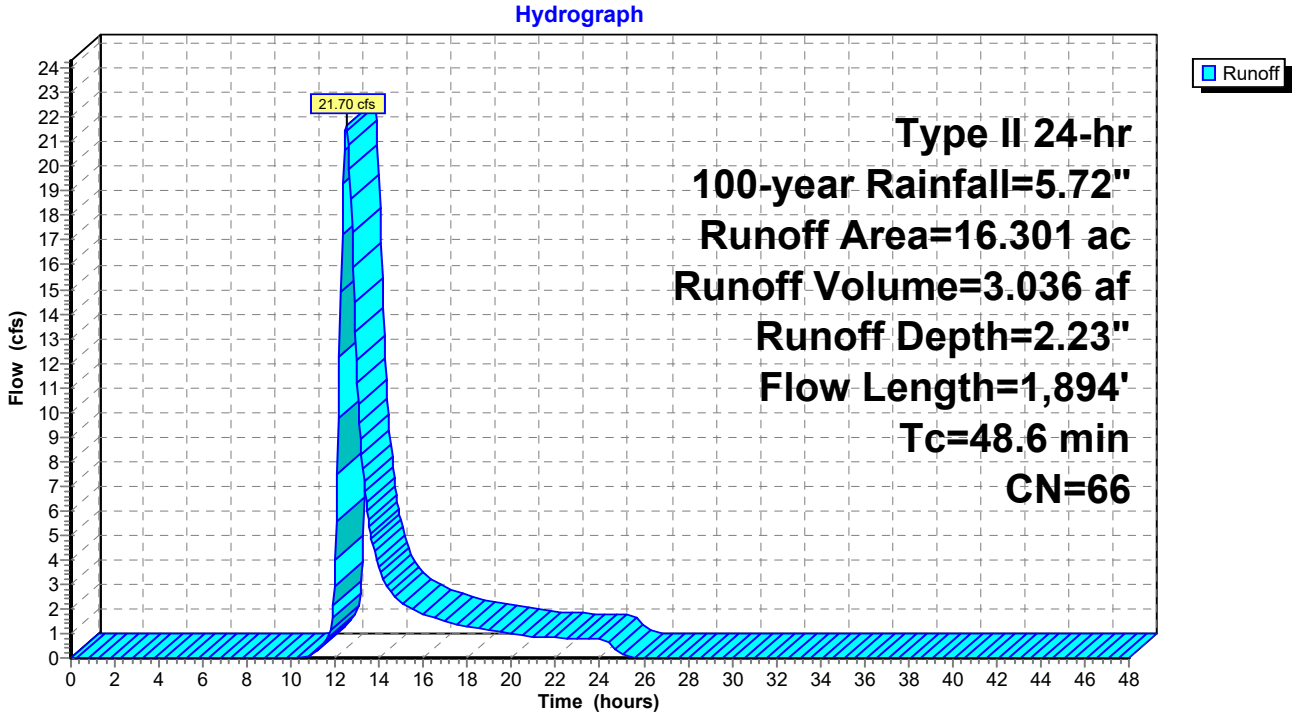
Runoff = 21.70 cfs @ 12.50 hrs, Volume= 3.036 af, Depth= 2.23"
Routed to Link SP5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
6.064	58	Meadow, non-grazed, HSG B
9.461	71	Meadow, non-grazed, HSG C
0.126	55	Woods, Good, HSG B
0.650	70	Woods, Good, HSG C
16.301	66	Weighted Average
16.301		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.8	100	0.0020	0.06		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
19.8	1,554	0.0350	1.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	240		3.81		**Direct Entry, CF**
48.6	1,894	Total			

Subcatchment 6S: Sub 6



Summary for Subcatchment 7.1: Sub 7.1

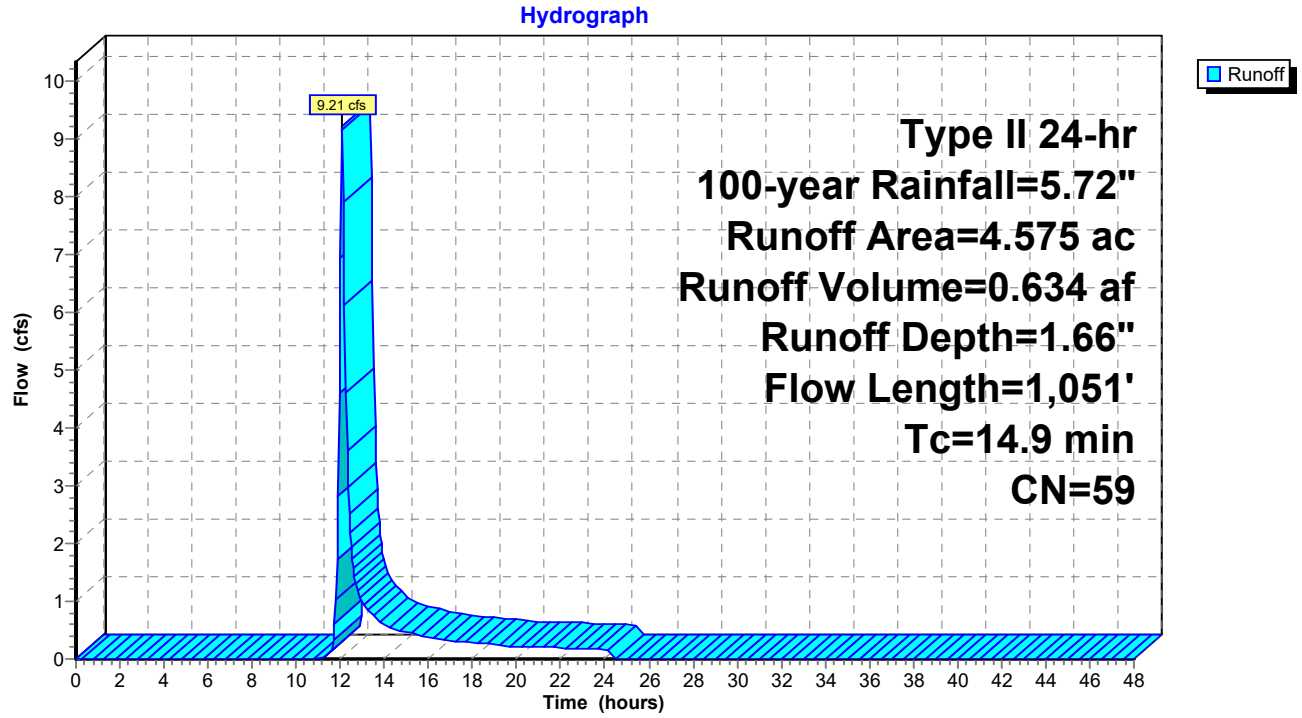
Runoff = 9.21 cfs @ 12.08 hrs, Volume= 0.634 af, Depth= 1.66"
Routed to Pond 7.1P :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
4.216	58	Meadow, non-grazed, HSG B
0.131	96	Gravel surface, HSG B
0.228	55	Woods, Good, HSG B
4.575	59	Weighted Average
4.575		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.0640	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.7	90	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	54	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
6.7	807	0.0820	2.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.9	1,051	Total			

Subcatchment 7.1: Sub 7.1



Summary for Subcatchment 7S: Sub 7

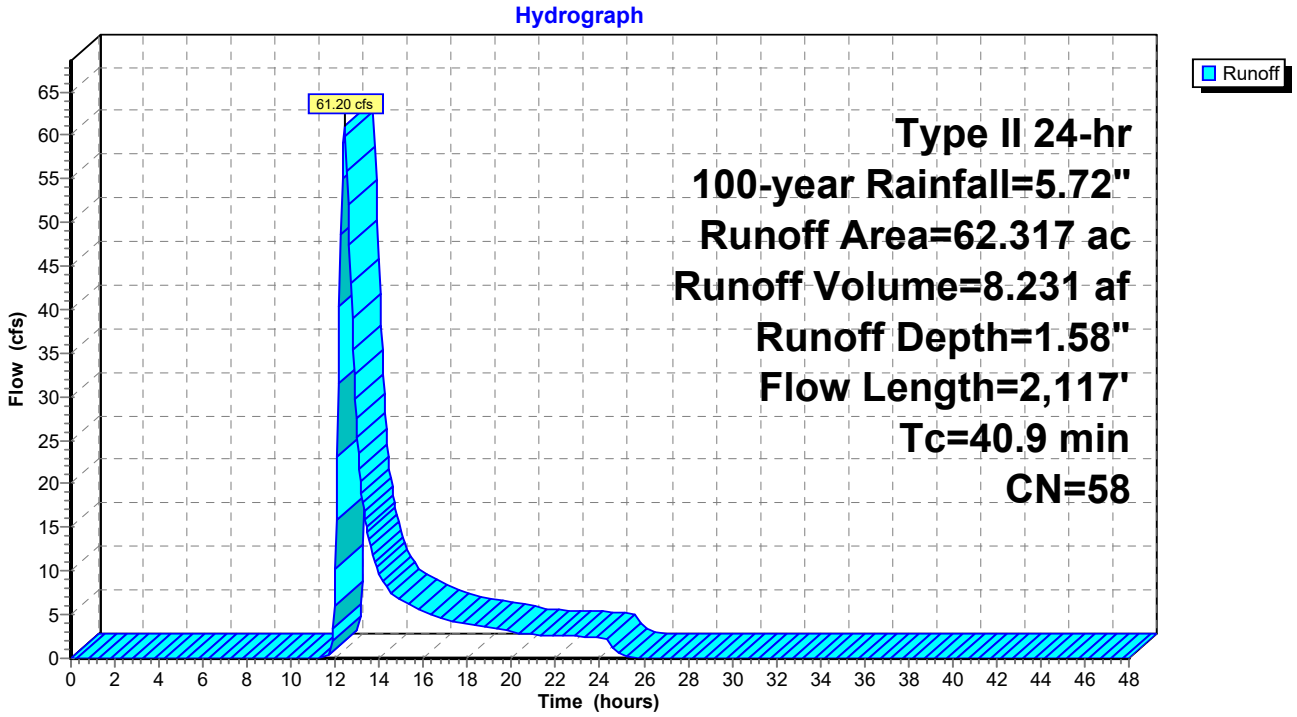
Runoff = 61.20 cfs @ 12.42 hrs, Volume= 8.231 af, Depth= 1.58"
Routed to Link SP7 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
46.288	58	Meadow, non-grazed, HSG B
1.123	78	Meadow, non-grazed, HSG D
12.864	55	Woods, Good, HSG B
0.323	77	Woods, Good, HSG D
0.107	74	Pasture/grassland/range, Good, HSG C
1.155	96	Gravel surface, HSG A
0.457	48	Brush, Good, HSG B
62.317	58	Weighted Average
62.317		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.8	100	0.0020	0.06		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
9.7	786	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	1,231		6.01		**Direct Entry,**
40.9	2,117	Total			

Subcatchment 7S: Sub 7



Summary for Subcatchment 8S: Sub 8

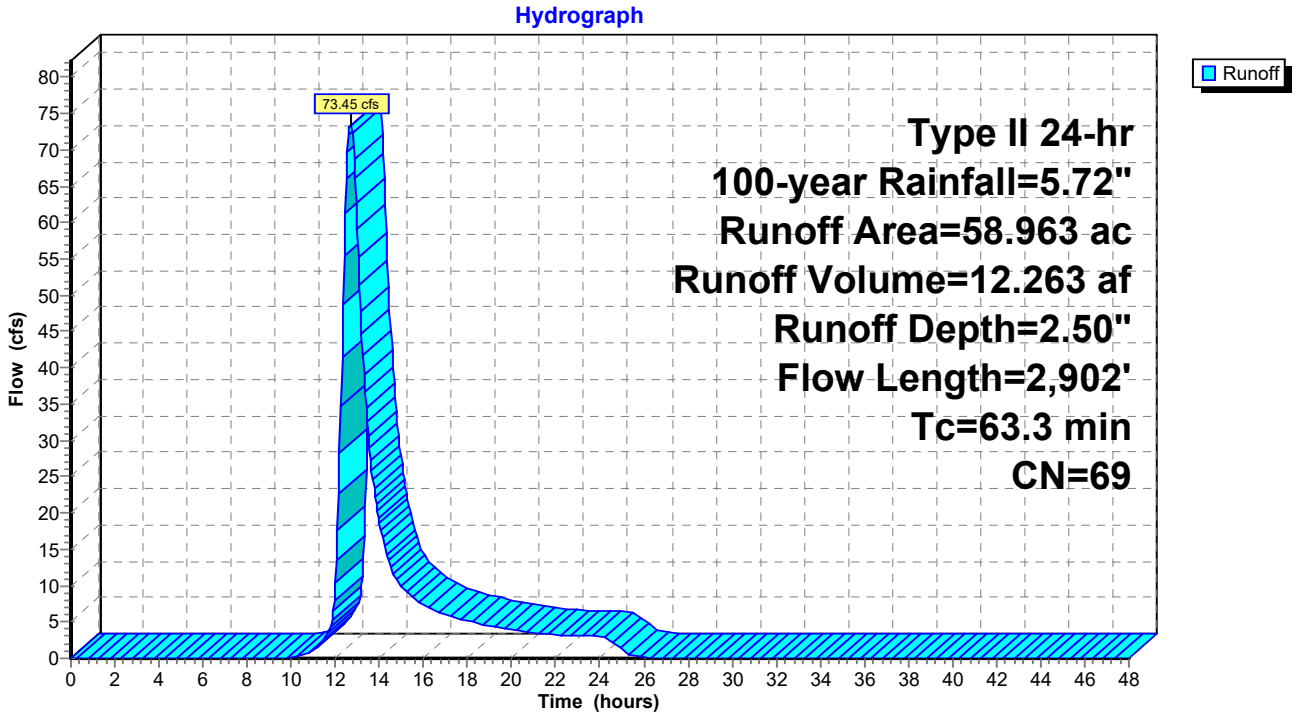
Runoff = 73.45 cfs @ 12.69 hrs, Volume= 12.263 af, Depth= 2.50"
Routed to Reach 6R : W-NSD-35

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
6.209	58	Meadow, non-grazed, HSG B
30.343	71	Meadow, non-grazed, HSG C
8.033	78	Meadow, non-grazed, HSG D
5.658	55	Woods, Good, HSG B
6.737	70	Woods, Good, HSG C
1.132	77	Woods, Good, HSG D
0.761	96	Gravel surface, HSG A
0.090	80	Pasture/grassland/range, Good, HSG D
58.963	69	Weighted Average
58.963		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.7	100	0.0030	0.07		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.6	315	0.0130	0.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
23.1	727	0.0110	0.52		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.9	1,760		2.97		**Direct Entry, CF**
63.3	2,902	Total			

Subcatchment 8S: Sub 8



Summary for Subcatchment 9.1S: Sub 9.1

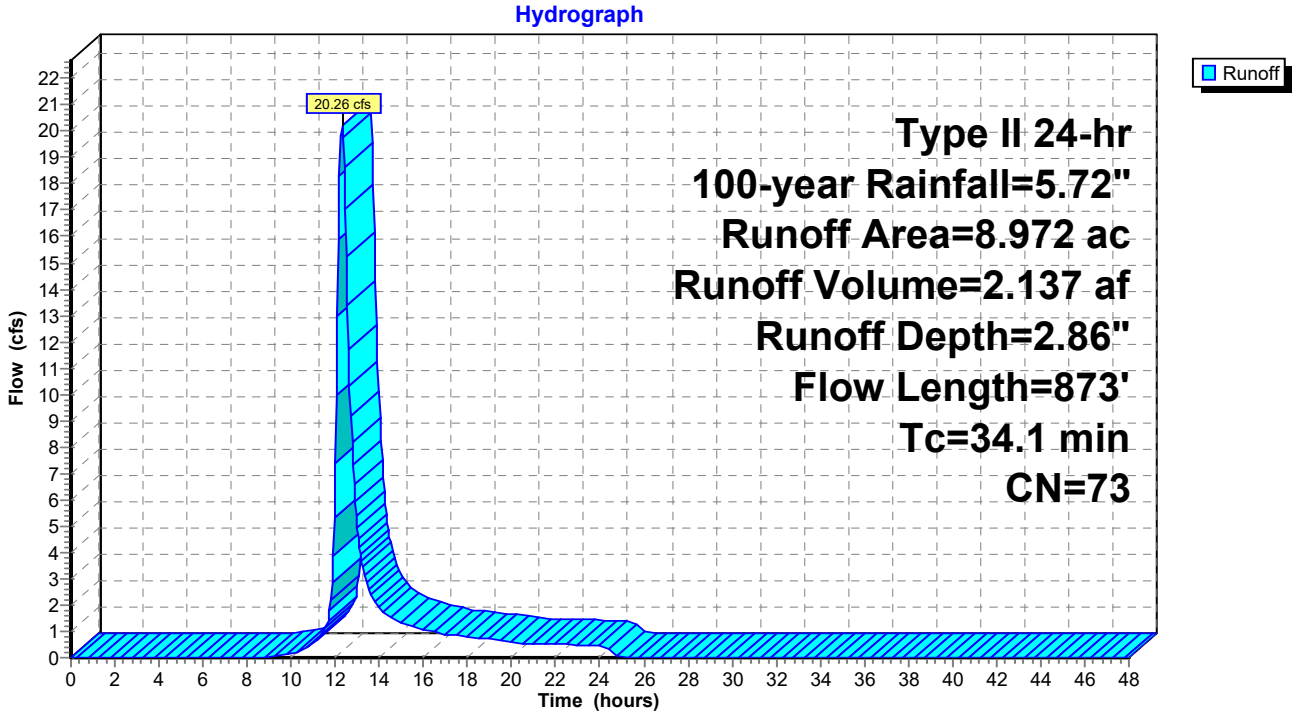
Runoff = 20.26 cfs @ 12.30 hrs, Volume= 2.137 af, Depth= 2.86"
Routed to Pond 9.1P : 9.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
1.619	78	Meadow, non-grazed, HSG D
0.528	65	Brush, Good, HSG C
4.896	71	Meadow, non-grazed, HSG C
1.929	74	>75% Grass cover, Good, HSG C
8.972	73	Weighted Average
8.972		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.0040	0.08		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
13.0	773	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
34.1	873	Total			

Subcatchment 9.1S: Sub 9.1



Summary for Subcatchment 9S: Sub 9

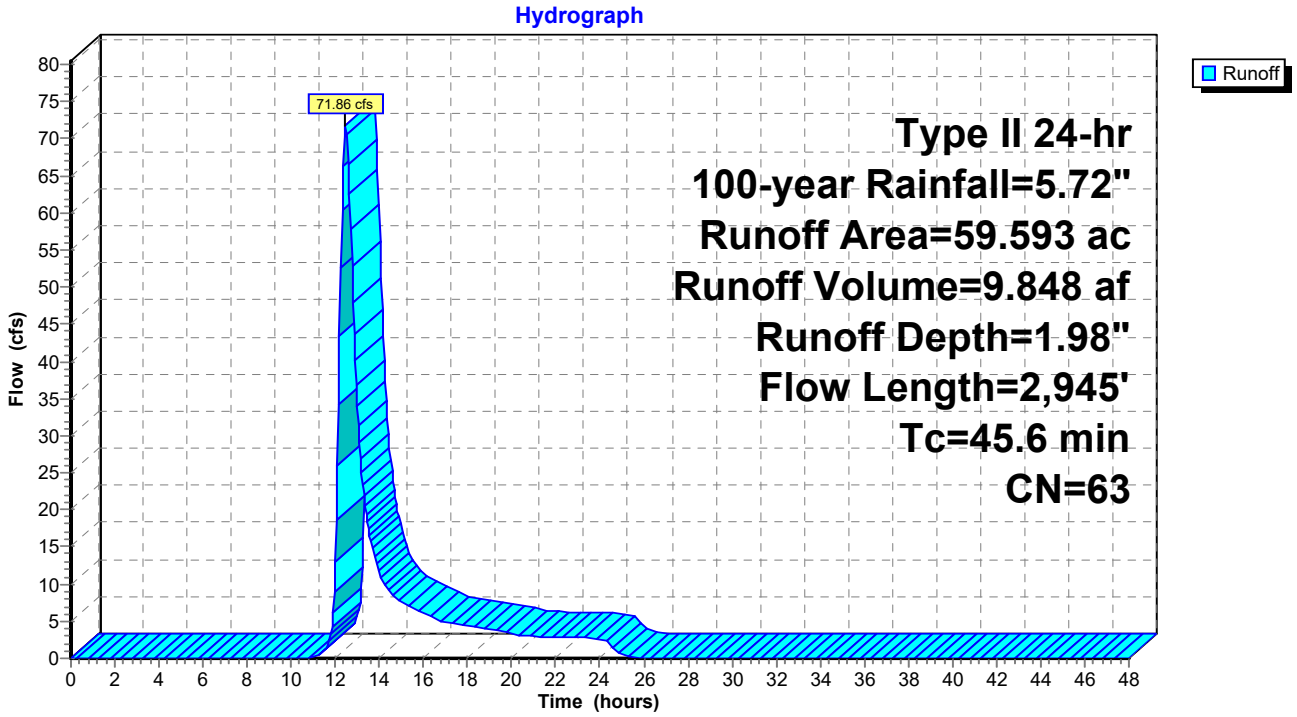
Runoff = 71.86 cfs @ 12.47 hrs, Volume= 9.848 af, Depth= 1.98"
Routed to Link SP9 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
2.871	48	Brush, Good, HSG B
0.293	65	Brush, Good, HSG C
0.014	73	Brush, Good, HSG D
3.530	96	Gravel surface, HSG D
0.332	98	Unconnected roofs, HSG D
23.963	58	Meadow, non-grazed, HSG B
2.179	71	Meadow, non-grazed, HSG C
0.495	78	Meadow, non-grazed, HSG D
6.553	61	>75% Grass cover, Good, HSG B
6.501	74	>75% Grass cover, Good, HSG C
0.430	98	Water Surface, HSG D
10.852	55	Woods, Good, HSG B
1.580	70	Woods, Good, HSG C
59.593	63	Weighted Average
58.831		98.72% Pervious Area
0.762		1.28% Impervious Area
0.332		43.57% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0060	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
13.8	841	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.9	1,254	0.0750	1.92		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.6	156		1.63		**Direct Entry,**
1.4	594		7.07		**Direct Entry,**
45.6	2,945	Total			

Subcatchment 9S: Sub 9



Summary for Subcatchment 10.1S: Sub 10.1

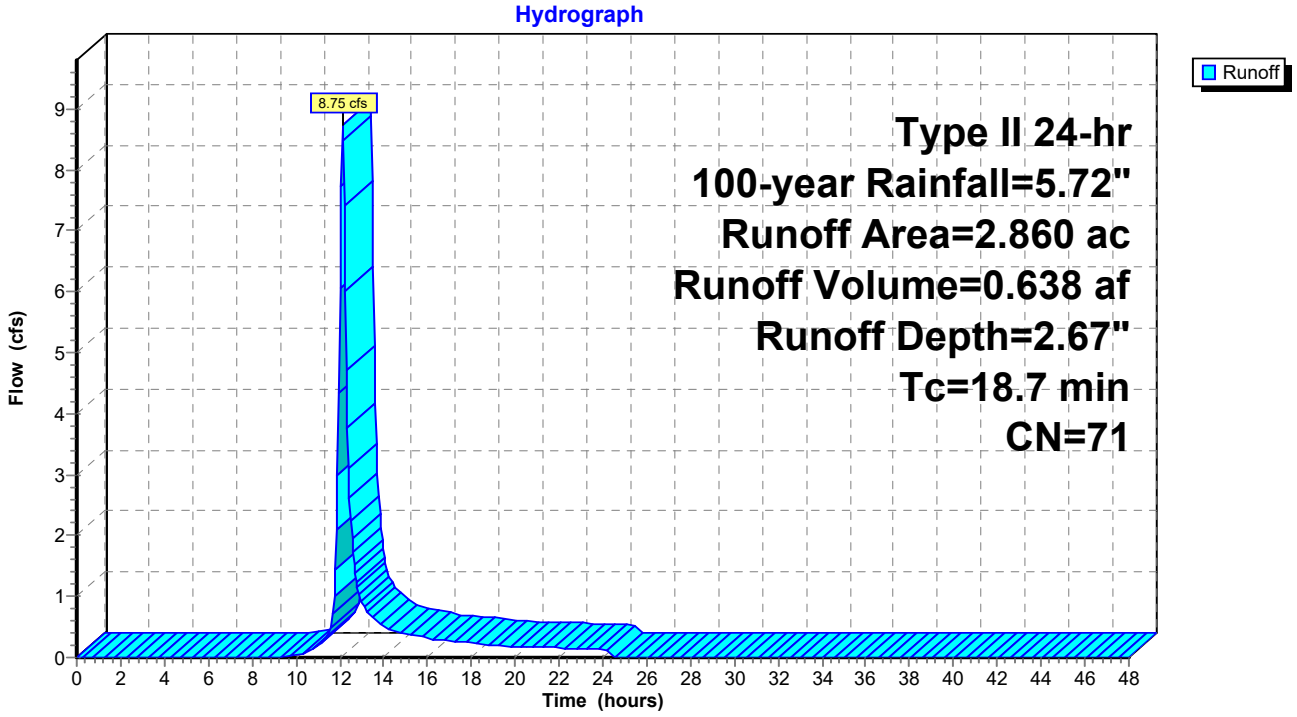
Runoff = 8.75 cfs @ 12.12 hrs, Volume= 0.638 af, Depth= 2.67"
Routed to Pond 10.1P : 10.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.026	61	>75% Grass cover, Good, HSG B
0.781	74	>75% Grass cover, Good, HSG C
0.447	80	>75% Grass cover, Good, HSG D
0.524	58	Meadow, non-grazed, HSG B
1.054	71	Meadow, non-grazed, HSG C
0.028	65	Brush, Good, HSG C
2.860	71	Weighted Average
2.860		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.7					**Direct Entry, Direct**

Subcatchment 10.1S: Sub 10.1



Summary for Subcatchment 10S: Sub 10

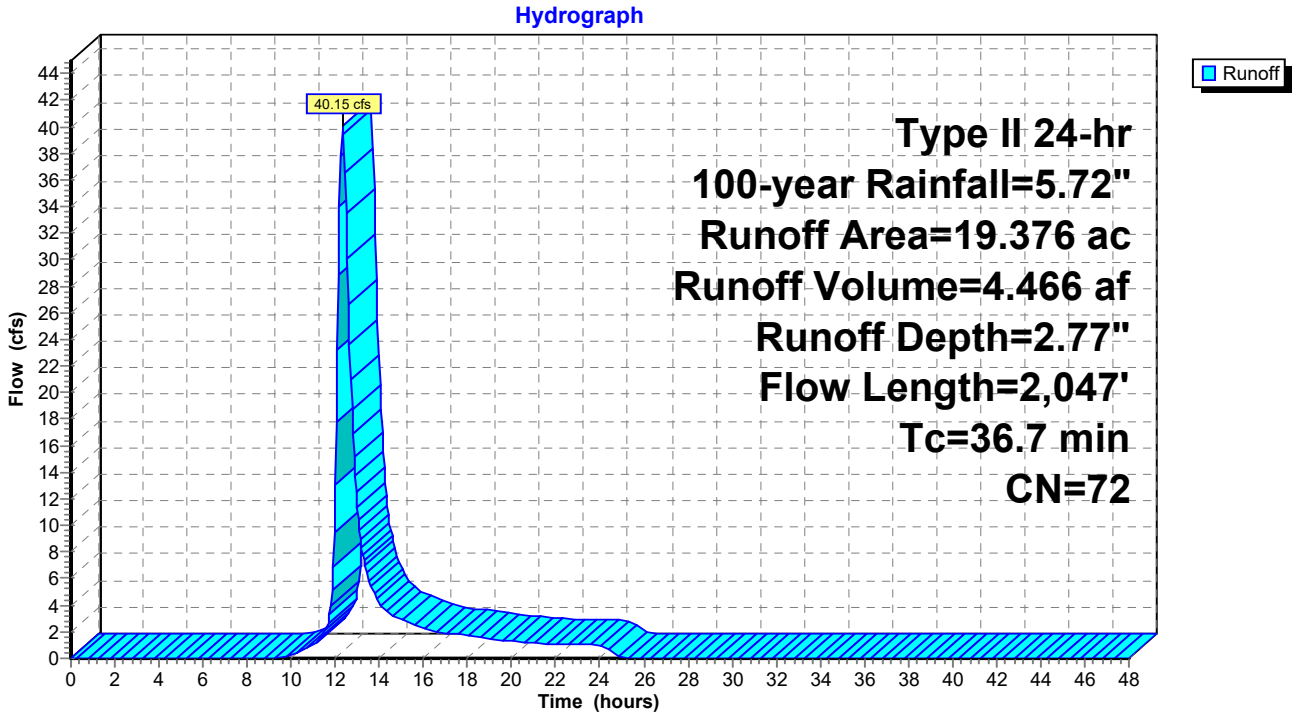
Runoff = 40.15 cfs @ 12.33 hrs, Volume= 4.466 af, Depth= 2.77"
Routed to Link SP10 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
1.008	98	Water Surface, HSG D
0.081	98	Unconnected roofs, HSG D
0.828	96	Gravel surface, HSG D
0.200	48	Brush, Good, HSG B
1.752	65	Brush, Good, HSG C
2.996	73	Brush, Good, HSG D
0.403	58	Meadow, non-grazed, HSG B
1.089	71	Meadow, non-grazed, HSG C
4.486	61	>75% Grass cover, Good, HSG B
2.211	74	>75% Grass cover, Good, HSG C
3.204	80	>75% Grass cover, Good, HSG D
0.917	55	Woods, Good, HSG B
0.044	70	Woods, Good, HSG C
0.157	77	Woods, Good, HSG D
19.376	72	Weighted Average
18.287		94.38% Pervious Area
1.089		5.62% Impervious Area
0.081		7.44% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0210	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
22.7	1,347	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.1	600		3.18		**Direct Entry, CF**
36.7	2,047	Total			

Subcatchment 10S: Sub 10



Summary for Subcatchment 11S: Sub 11

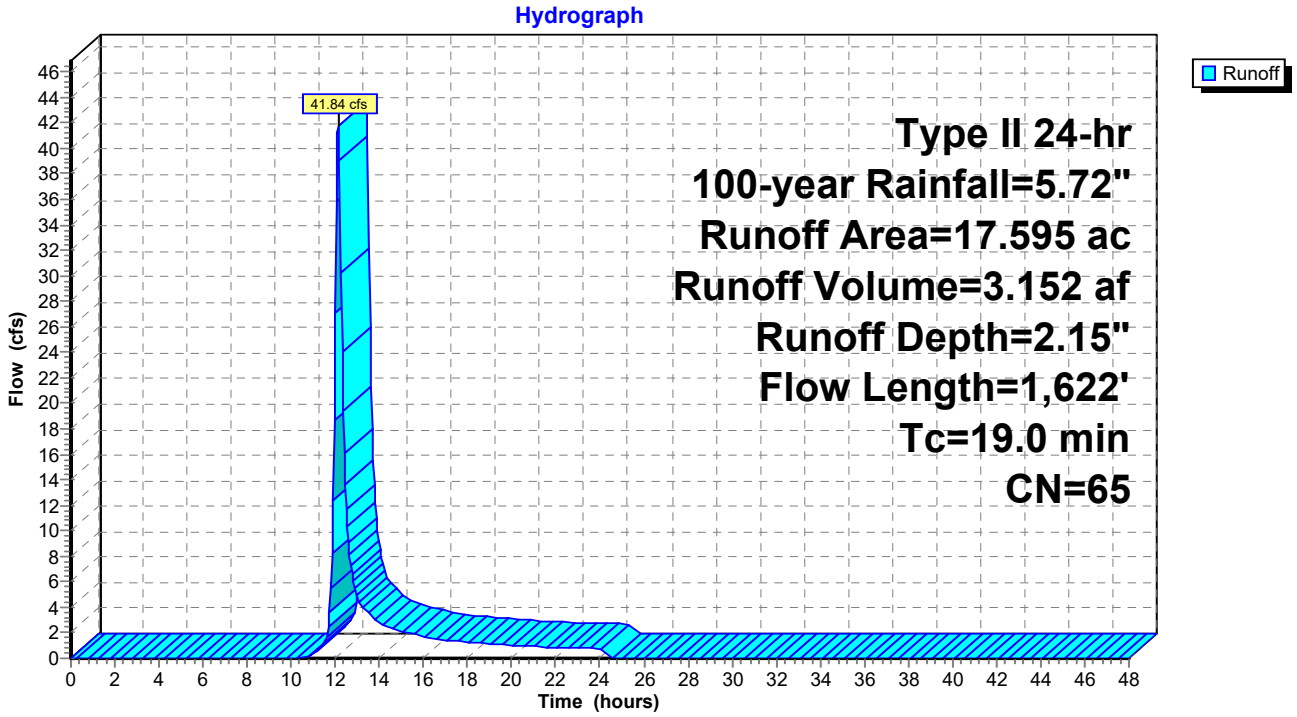
Runoff = 41.84 cfs @ 12.13 hrs, Volume= 3.152 af, Depth= 2.15"
Routed to Link SP11 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.199	48	Brush, Good, HSG B
0.091	65	Brush, Good, HSG C
1.969	96	Gravel surface, HSG D
0.091	98	Unconnected roofs, HSG D
2.133	58	Meadow, non-grazed, HSG B
1.351	71	Meadow, non-grazed, HSG C
2.660	61	>75% Grass cover, Good, HSG B
1.151	74	>75% Grass cover, Good, HSG C
0.372	98	Water Surface, HSG D
7.243	55	Woods, Good, HSG B
0.335	70	Woods, Good, HSG C
17.595	65	Weighted Average
17.132		97.37% Pervious Area
0.463		2.63% Impervious Area
0.091		19.65% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.0320	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.9	579	0.0240	2.49		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.6	277	0.0620	1.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.7	102	0.2670	2.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.6	564		3.62		**Direct Entry, CF**
19.0	1,622	Total			

Subcatchment 11S: Sub 11



Summary for Subcatchment 12S: Sub 12

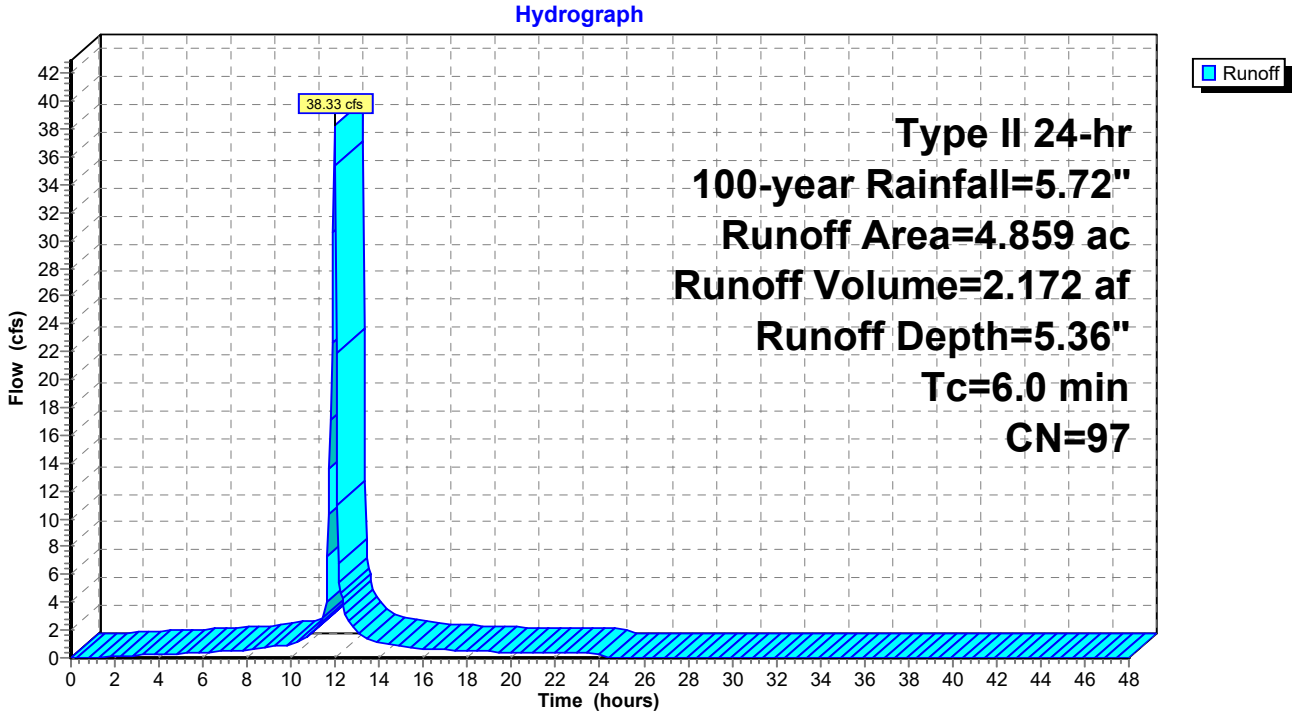
Runoff = 38.33 cfs @ 11.96 hrs, Volume= 2.172 af, Depth= 5.36"
Routed to Pond 12P : 12P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.038	98	Unconnected pavement, HSG D
2.251	96	Gravel surface, HSG D
2.570	98	Water Surface, HSG D
4.859	97	Weighted Average
2.251		46.33% Pervious Area
2.608		53.67% Impervious Area
0.038		1.46% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, minimum**

Subcatchment 12S: Sub 12



Summary for Subcatchment 13S: Sub 13

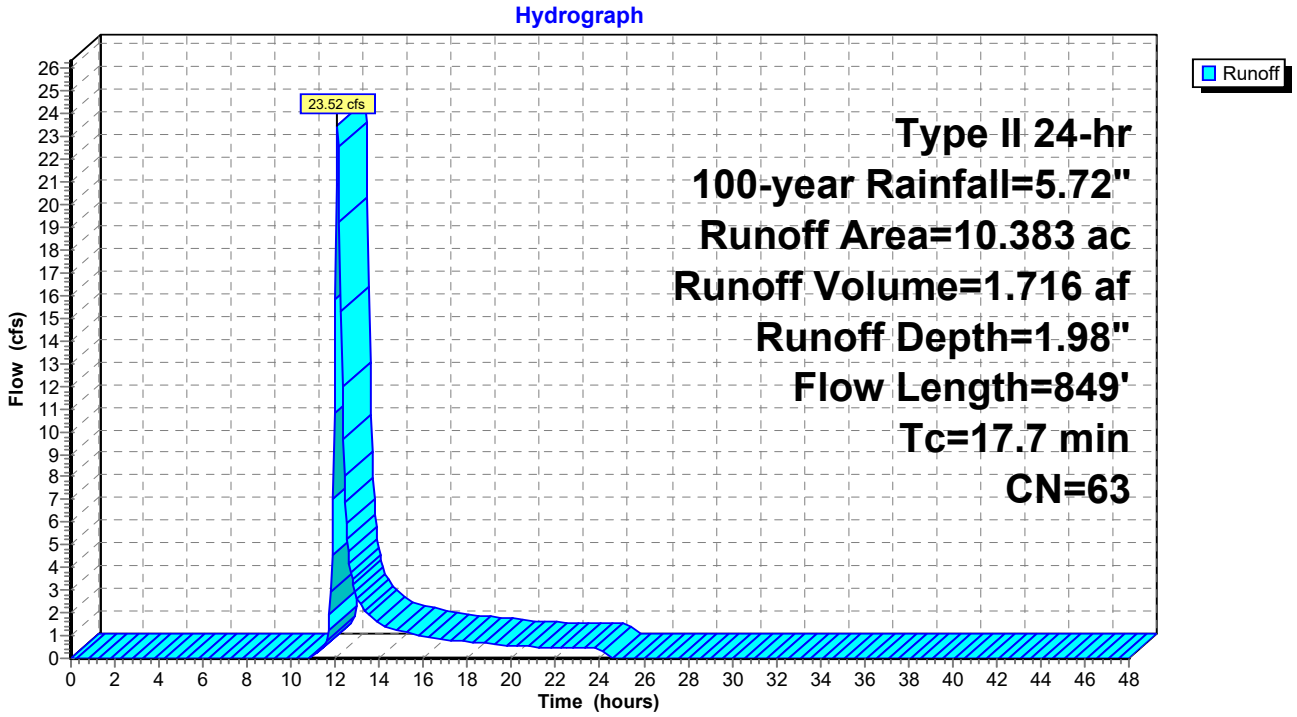
Runoff = 23.52 cfs @ 12.11 hrs, Volume= 1.716 af, Depth= 1.98"
Routed to Link SP13 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.019	98	Unconnected pavement, HSG D
0.120	96	Gravel surface, HSG D
1.784	58	Meadow, non-grazed, HSG B
4.488	71	Meadow, non-grazed, HSG C
3.647	55	Woods, Good, HSG B
0.325	70	Woods, Good, HSG C
10.383	63	Weighted Average
10.364		99.82% Pervious Area
0.019		0.18% Impervious Area
0.019		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0250	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.4	526	0.0540	1.63		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.7	62	0.0970	1.56		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	161	0.1330	1.82		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.7	849	Total			

Subcatchment 13S: Sub 13



Summary for Subcatchment 14S: Sub 14

[47] Hint: Peak is 547% of capacity of segment #4
[47] Hint: Peak is 1295% of capacity of segment #5

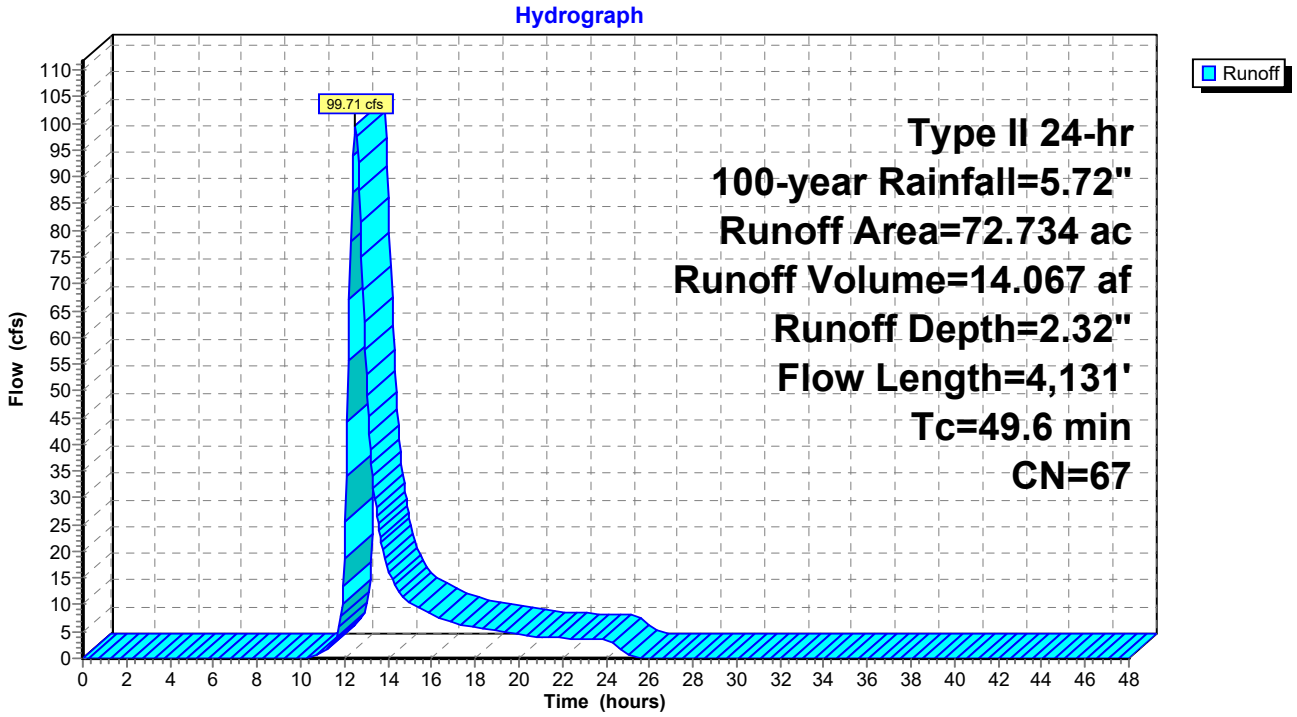
Runoff = 99.71 cfs @ 12.51 hrs, Volume= 14.067 af, Depth= 2.32"
Routed to Link SP14 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.667	48	Brush, Good, HSG B
0.121	65	Brush, Good, HSG C
1.517	73	Brush, Good, HSG D
0.307	98	Unconnected roofs, HSG D
19.939	58	Meadow, non-grazed, HSG B
36.007	71	Meadow, non-grazed, HSG C
0.100	78	Meadow, non-grazed, HSG D
0.760	80	>75% Grass cover, Good, HSG D
3.148	55	Woods, Good, HSG B
9.611	70	Woods, Good, HSG C
0.557	77	Woods, Good, HSG D
72.734	67	Weighted Average
72.427		99.58% Pervious Area
0.307		0.42% Impervious Area
0.307		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	50	0.0600	0.09		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
5.6	50	0.0280	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.7	465	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	1,433	0.0120	2.43	18.23	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=0.50' Z= 20.0 '/' Top.W=25.00' n= 0.030 Earth, grassed & winding
18.5	2,133	0.0080	1.93	7.70	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=0.50' Z= 6.0 '/' Top.W=11.00' n= 0.035 Earth, dense weeds
49.6	4,131	Total			

Subcatchment 14S: Sub 14



Summary for Subcatchment 17S: Sub 17

[47] Hint: Peak is 1807% of capacity of segment #4

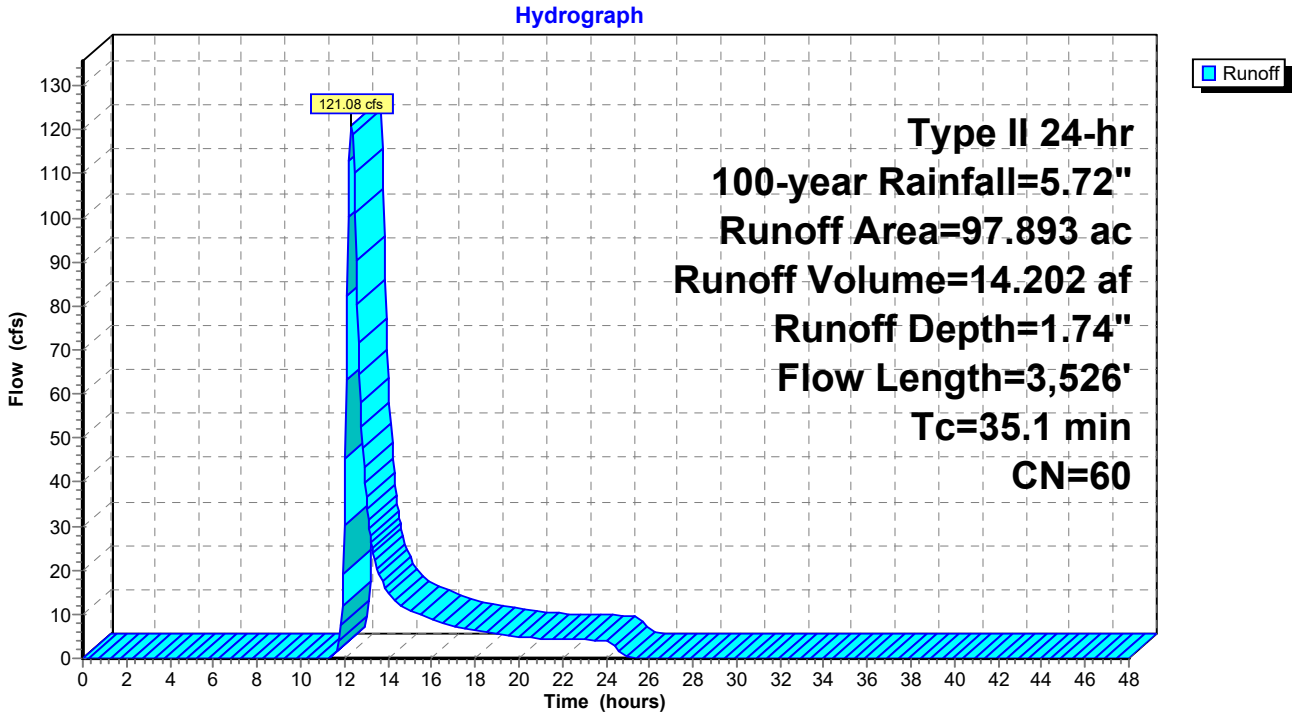
Runoff = 121.08 cfs @ 12.34 hrs, Volume= 14.202 af, Depth= 1.74"
Routed to Link SP17 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
1.139	96	Gravel surface, HSG D
1.153	98	Unconnected roofs, HSG D
77.902	58	Meadow, non-grazed, HSG B
0.464	71	Meadow, non-grazed, HSG C
4.651	78	Meadow, non-grazed, HSG D
3.000	61	>75% Grass cover, Good, HSG B
0.324	74	>75% Grass cover, Good, HSG C
1.232	80	>75% Grass cover, Good, HSG D
6.615	55	Woods, Good, HSG B
0.085	70	Woods, Good, HSG C
1.328	77	Woods, Good, HSG D
97.893	60	Weighted Average
96.740		98.82% Pervious Area
1.153		1.18% Impervious Area
1.153		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.2	681	0.0990	2.20		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.3	1,098	0.0650	1.78		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.2	1,647	0.0140	2.68	6.70	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 6.0 '/' Top.W=8.00' n= 0.030 Earth, grassed & winding
35.1	3,526	Total			

Subcatchment 17S: Sub 17



Summary for Subcatchment 18S: Sub 18

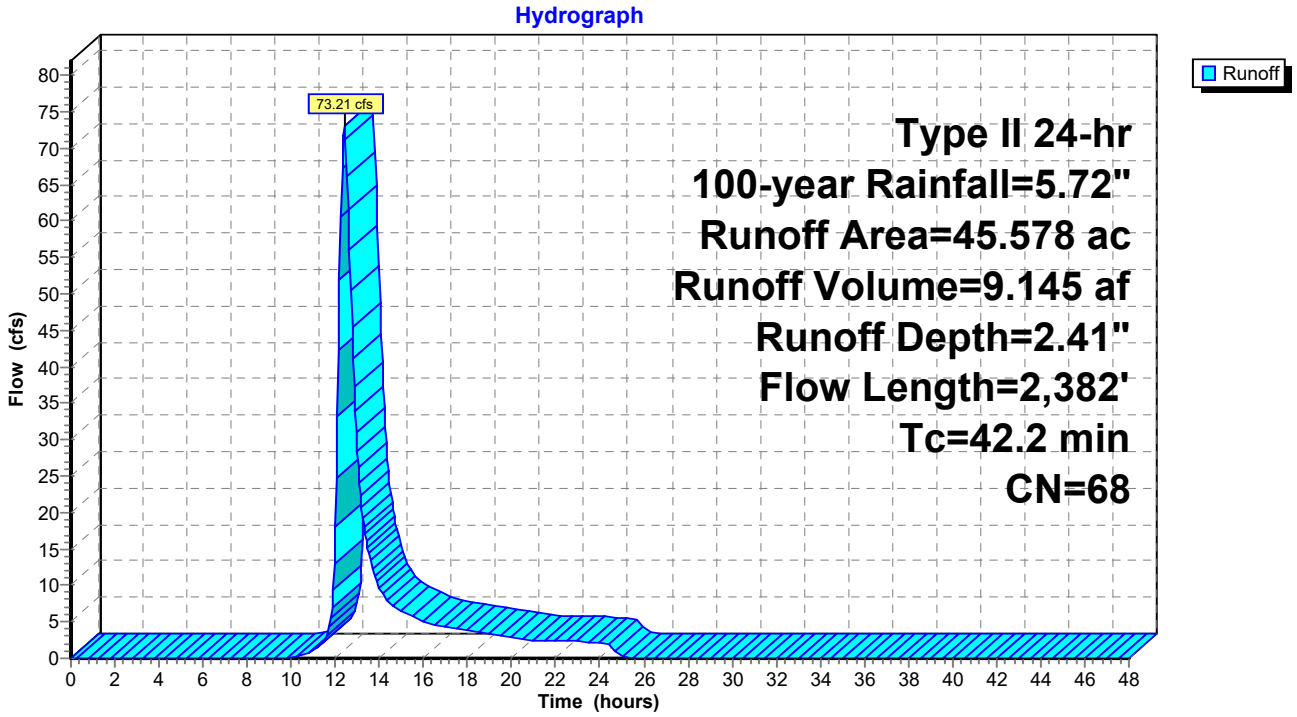
Runoff = 73.21 cfs @ 12.41 hrs, Volume= 9.145 af, Depth= 2.41"
Routed to Link SP18 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	3.098	48	Brush, Good, HSG B
	3.970	73	Brush, Good, HSG D
*	0.335	98	Pavement
	10.712	58	Meadow, non-grazed, HSG B
	19.406	71	Meadow, non-grazed, HSG C
	7.856	78	Meadow, non-grazed, HSG D
	0.101	77	Woods, Good, HSG D
*	0.100	96	Gravel road
	45.578	68	Weighted Average
	45.243		99.26% Pervious Area
	0.335		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	100	0.0180	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.5	668	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.5	459	0.0590	1.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	128	0.0130	0.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.9	1,027		1.33		**Direct Entry, CF**
42.2	2,382	Total			

Subcatchment 18S: Sub 18



Summary for Subcatchment 19S: Sub 19

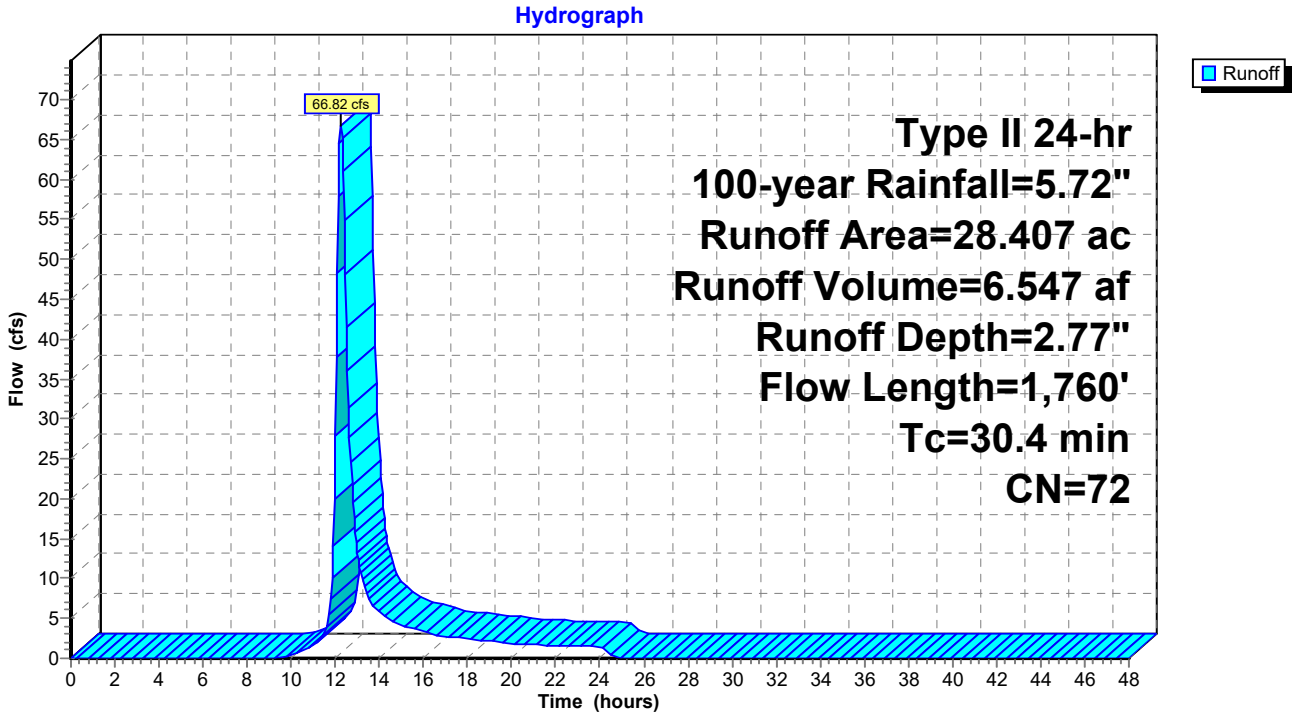
Runoff = 66.82 cfs @ 12.25 hrs, Volume= 6.547 af, Depth= 2.77"
Routed to Reach 20.1R : S-KCF-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.227	65	Brush, Good, HSG C
0.105	73	Brush, Good, HSG D
2.120	58	Meadow, non-grazed, HSG B
17.999	71	Meadow, non-grazed, HSG C
7.141	78	Meadow, non-grazed, HSG D
0.153	98	Water Surface, HSG D
0.125	77	Woods, Good, HSG D
0.537	96	Gravel surface, HSG D
28.407	72	Weighted Average
28.254		99.46% Pervious Area
0.153		0.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0430	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.5	212	0.1120	2.34		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.0	635	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.7	813	0.0330	1.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
30.4	1,760	Total			

Subcatchment 19S: Sub 19



Summary for Subcatchment 20S: Sub 20

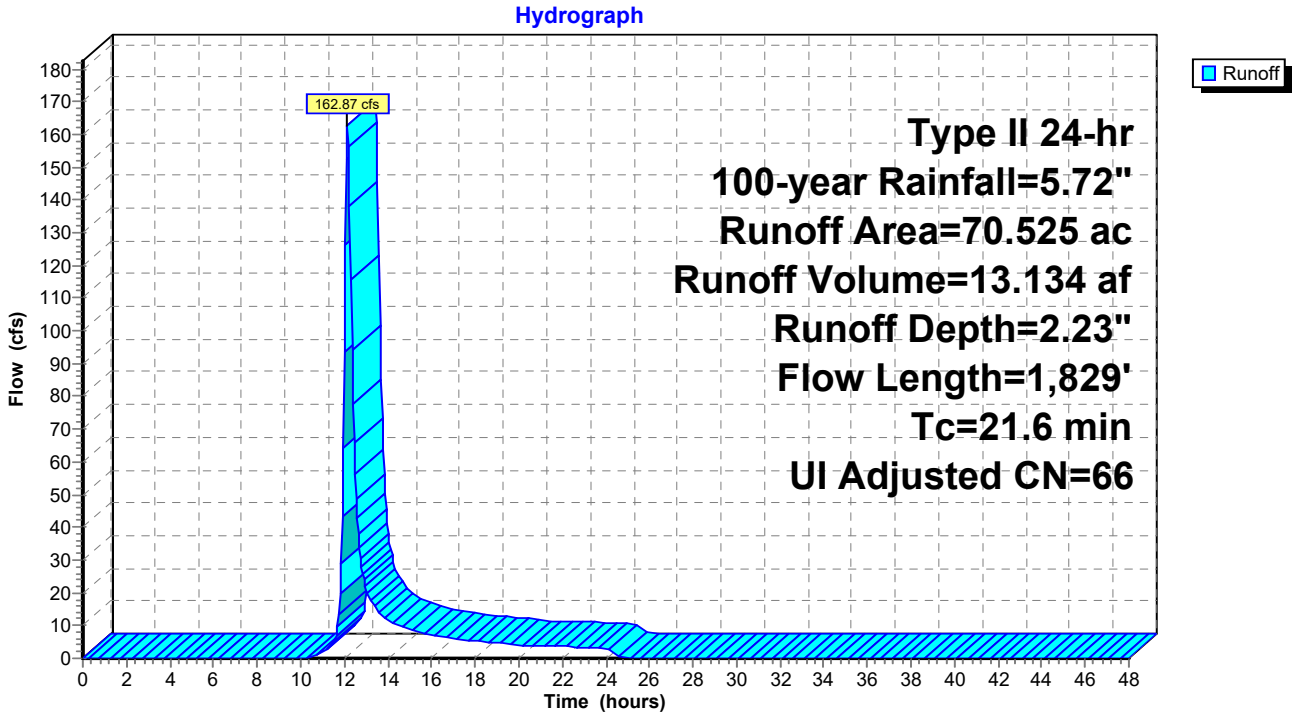
Runoff = 162.87 cfs @ 12.16 hrs, Volume= 13.134 af, Depth= 2.23"
Routed to Reach 20.1R : S-KCF-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Adj	Description
0.508	98		Unconnected roofs, HSG D
29.509	58		Meadow, non-grazed, HSG B
23.016	71		Meadow, non-grazed, HSG C
12.457	78		Meadow, non-grazed, HSG D
3.657	61		>75% Grass cover, Good, HSG B
0.124	55		Woods, Good, HSG B
0.222	70		Woods, Good, HSG C
0.015	77		Woods, Good, HSG D
0.044	98		Water Surface, HSG D
0.274	48		Brush, Good, HSG B
0.054	65		Brush, Good, HSG C
0.133	73		Brush, Good, HSG D
0.512	96		Gravel surface, HSG D
70.525	67	66	Weighted Average, UI Adjusted
69.973			99.22% Pervious Area
0.552			0.78% Impervious Area
0.508			92.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.6	259	0.0580	1.69		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.8	703	0.0360	1.33		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	767		3.65		**Direct Entry, CF**
21.6	1,829	Total			

Subcatchment 20S: Sub 20



Summary for Subcatchment 21S: Sub 21

[47] Hint: Peak is 1394% of capacity of segment #3
[47] Hint: Peak is 1244% of capacity of segment #4
[47] Hint: Peak is 1453% of capacity of segment #5

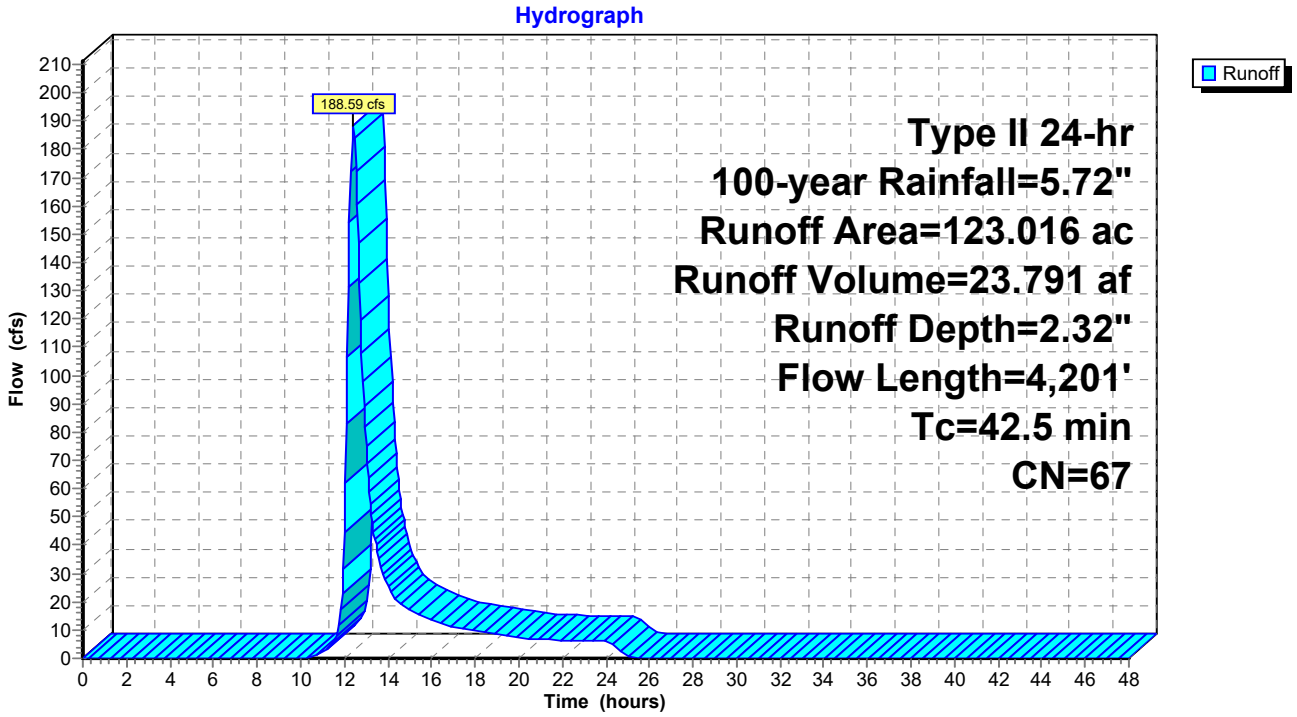
Runoff = 188.59 cfs @ 12.41 hrs, Volume= 23.791 af, Depth= 2.32"
Routed to Reach 22.1R : S-KCF-5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
2.223	96	Gravel surface, HSG D
0.950	98	Unconnected roofs, HSG D
50.366	58	Meadow, non-grazed, HSG B
57.844	71	Meadow, non-grazed, HSG C
3.445	78	Meadow, non-grazed, HSG D
3.145	98	Water Surface, HSG D
0.555	55	Woods, Good, HSG B
1.125	70	Woods, Good, HSG C
0.616	61	>75% Grass cover, Good, HSG B
1.689	74	>75% Grass cover, Good, HSG C
0.714	48	Brush, Good, HSG B
0.344	65	Brush, Good, HSG C
123.016	67	Weighted Average
118.921		96.67% Pervious Area
4.095		3.33% Impervious Area
0.950		23.20% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0160	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
12.6	1,112	0.0440	1.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	346	0.0150	2.58	13.52	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 9.0 '/' Top.W=15.00' n= 0.035 Earth, dense weeds
8.3	1,504	0.0150	3.03	15.15	**Trap/Vee/Rect Channel Flow,** Bot.W=9.00' D=0.50' Z= 2.0 '/' Top.W=11.00' n= 0.035 Earth, dense weeds
7.3	1,139	0.0110	2.60	12.98	**Trap/Vee/Rect Channel Flow,** Bot.W=9.00' D=0.50' Z= 2.0 '/' Top.W=11.00' n= 0.035 Earth, dense weeds
42.5	4,201	Total			

Subcatchment 21S: Sub 21



Summary for Subcatchment 22S: Sub 22

[47] Hint: Peak is 5036% of capacity of segment #7

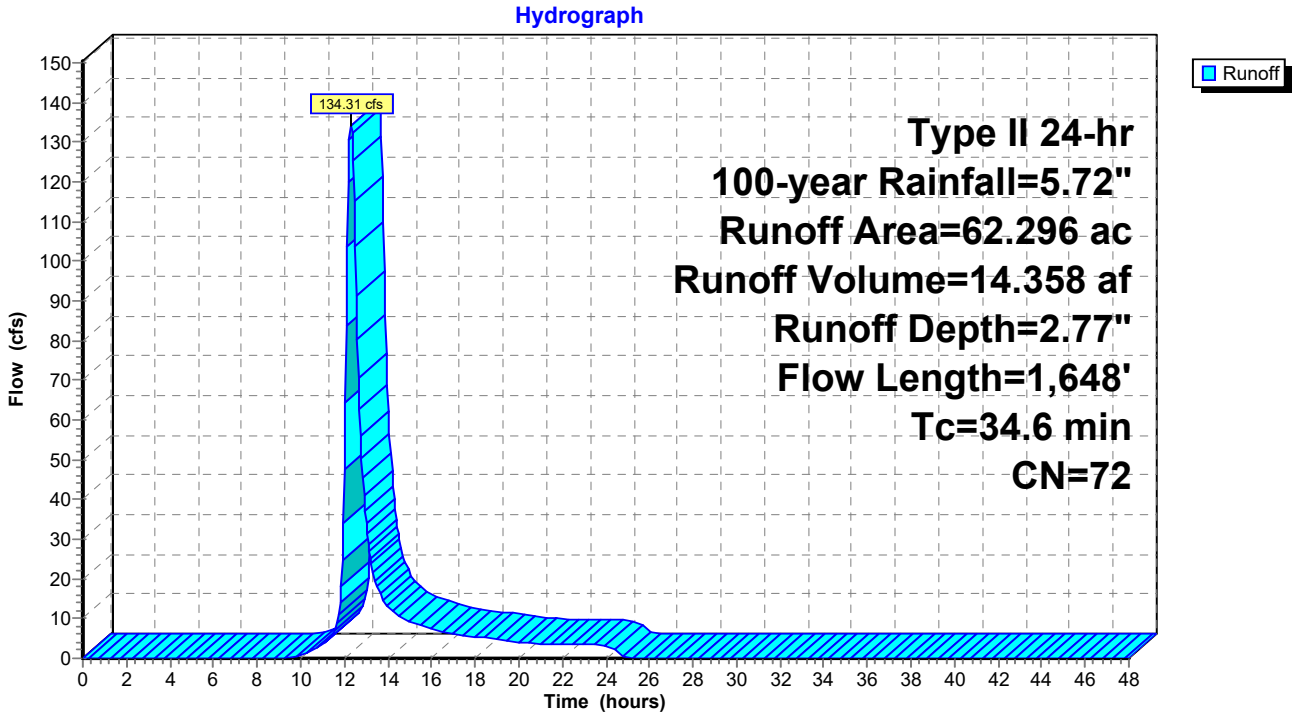
Runoff = 134.31 cfs @ 12.31 hrs, Volume= 14.358 af, Depth= 2.77"
Routed to Link SP22 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
1.623	96	Gravel surface, HSG D
4.694	58	Meadow, non-grazed, HSG B
43.712	71	Meadow, non-grazed, HSG C
9.237	78	Meadow, non-grazed, HSG D
0.118	55	Woods, Good, HSG B
0.413	70	Woods, Good, HSG C
1.693	77	Woods, Good, HSG D
0.373	98	Unconnected pavement, HSG D
0.303	48	Brush, Good, HSG B
0.130	65	Brush, Good, HSG C
62.296	72	Weighted Average
61.923		99.40% Pervious Area
0.373		0.60% Impervious Area
0.373		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.1	303	0.0260	2.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
3.1	240	0.0330	1.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.6	256	0.0120	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.6	78	0.0250	0.79		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
11.3	515	0.0230	0.76		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	156	0.0070	1.78	2.67	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
34.6	1,648	Total			

Subcatchment 22S: Sub 22



Summary for Subcatchment 23.1: Sub 23.1

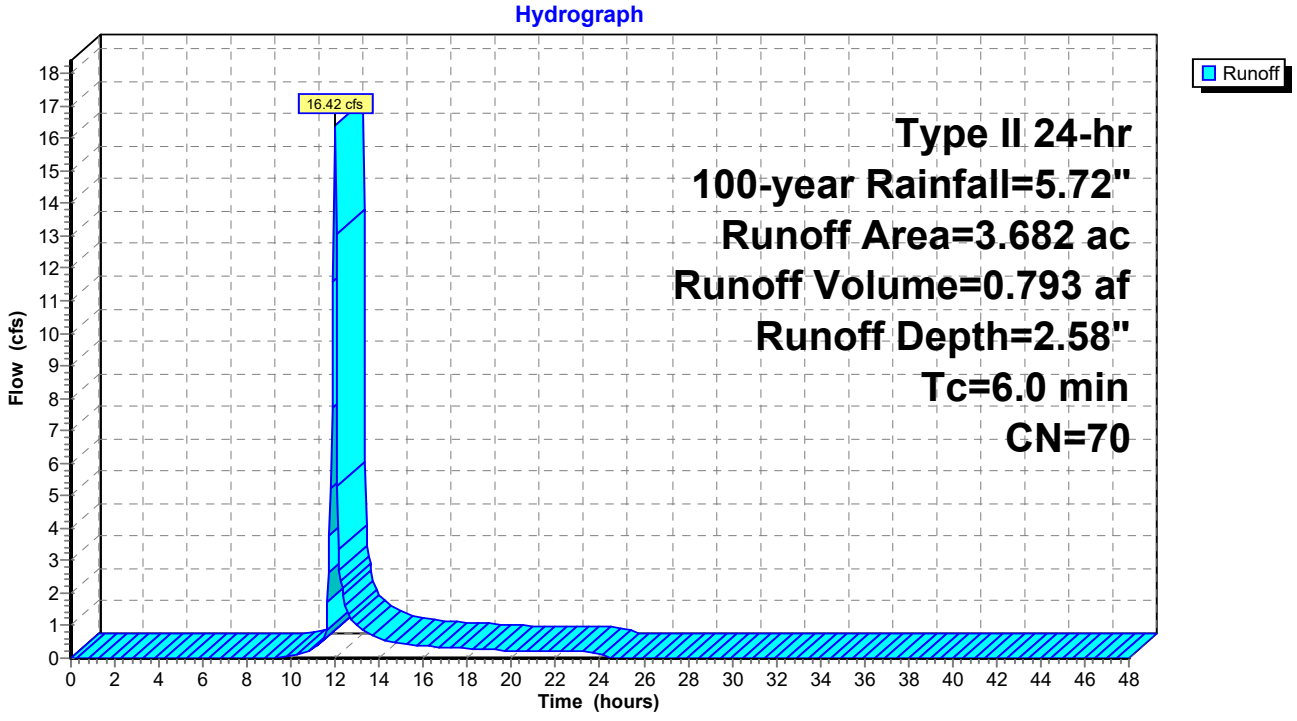
Runoff = 16.42 cfs @ 11.97 hrs, Volume= 0.793 af, Depth= 2.58"
Routed to Pond 23.1P : 23.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
*	0.928	96	Gravel
	2.257	58	Meadow, non-grazed, HSG B
	0.497	78	Meadow, non-grazed, HSG D
	3.682	70	Weighted Average
	3.682		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 23.1: Sub 23.1



Summary for Subcatchment 23S: Sub 23

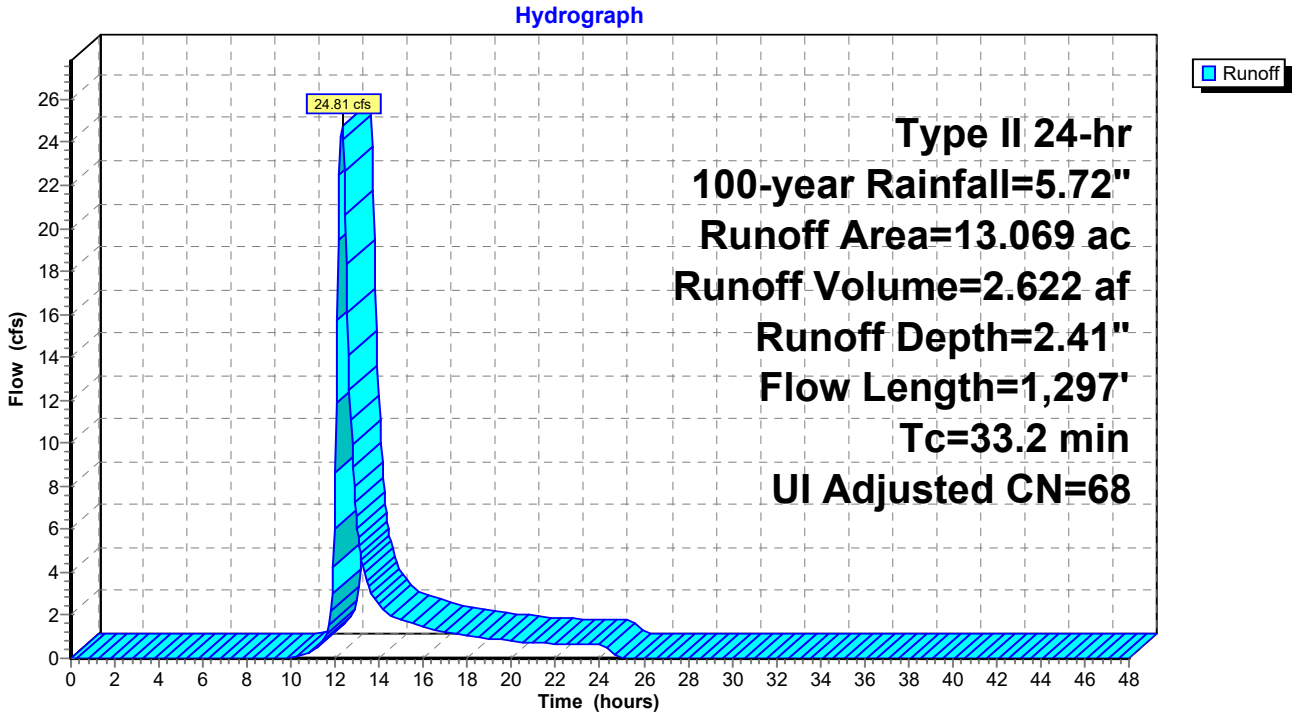
Runoff = 24.81 cfs @ 12.30 hrs, Volume= 2.622 af, Depth= 2.41"
Routed to Link SP23 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Adj	Description
0.012	48		Brush, Good, HSG B
0.040	65		Brush, Good, HSG C
0.387	98		Unconnected roofs, HSG D
2.687	58		Meadow, non-grazed, HSG B
9.525	71		Meadow, non-grazed, HSG C
0.031	55		Woods, Good, HSG B
0.387	61		>75% Grass cover, Good, HSG B
13.069	69	68	Weighted Average, UI Adjusted
12.682			97.04% Pervious Area
0.387			2.96% Impervious Area
0.387			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0760	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
15.8	892	0.0180	0.94		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	262	0.0490	1.55		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	43		1.79		**Direct Entry,**
33.2	1,297	Total			

Subcatchment 23S: Sub 23



Summary for Subcatchment 24S: Sub 24

[47] Hint: Peak is 367% of capacity of segment #3
[47] Hint: Peak is 127% of capacity of segment #4

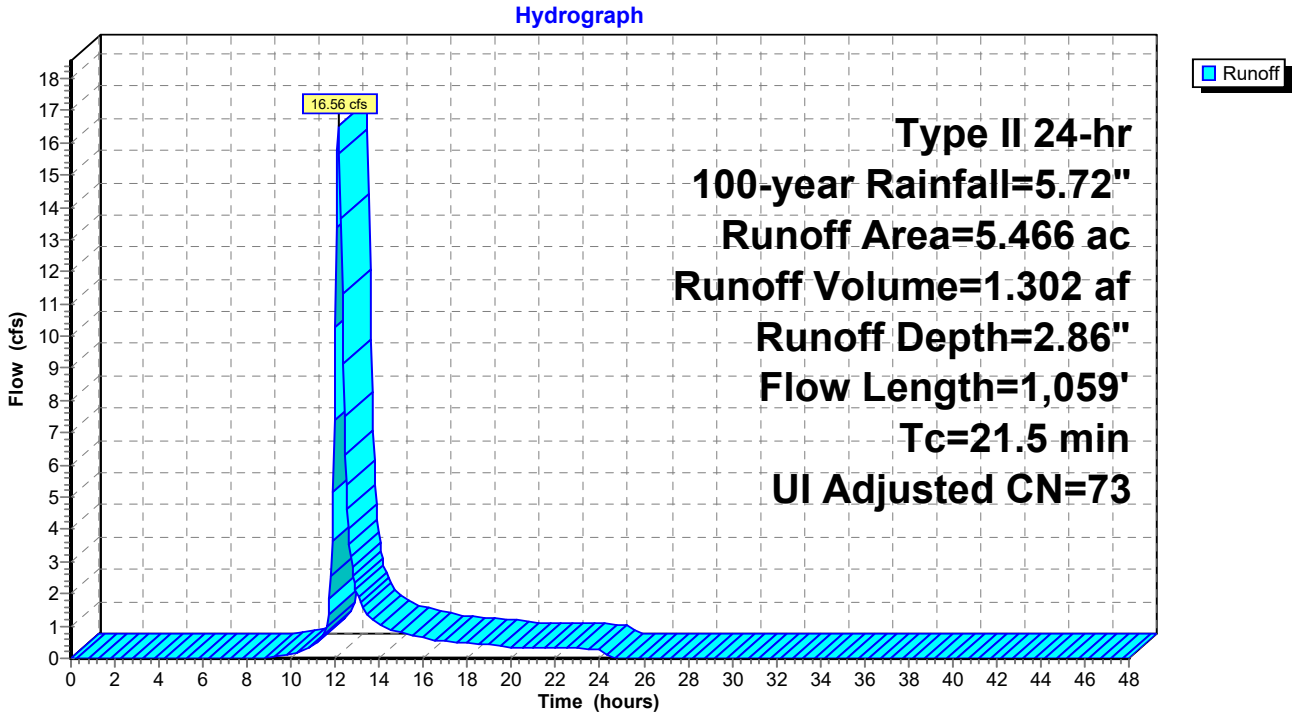
Runoff = 16.56 cfs @ 12.15 hrs, Volume= 1.302 af, Depth= 2.86"
Routed to Link SP24 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Adj	Description
0.036	96		Gravel surface, HSG D
0.421	98		Unconnected roofs, HSG D
0.252	58		Meadow, non-grazed, HSG B
2.730	71		Meadow, non-grazed, HSG C
0.093	61		>75% Grass cover, Good, HSG B
1.916	74		>75% Grass cover, Good, HSG C
0.018	70		Woods, Good, HSG C
5.466	74	73	Weighted Average, UI Adjusted
5.045			92.30% Pervious Area
0.421			7.70% Impervious Area
0.421			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0080	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.5	156	0.0610	1.73		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.6	294	0.0200	3.01	4.51	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
2.4	509	0.0220	3.47	13.02	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 3.0 '/' Top.W=9.00' n= 0.035 Earth, dense weeds
21.5	1,059	Total			

Subcatchment 24S: Sub 24



Summary for Subcatchment 43: Subcat 43

[47] Hint: Peak is 480% of capacity of segment #3

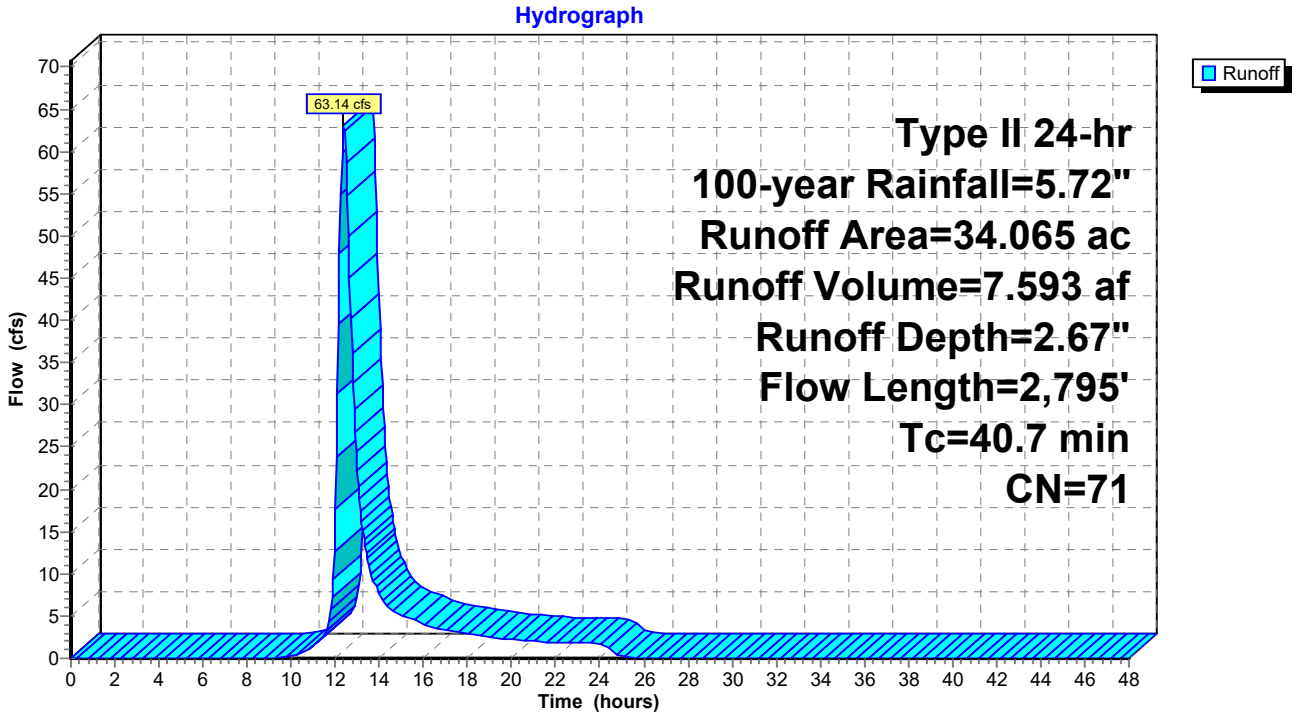
Runoff = 63.14 cfs @ 12.38 hrs, Volume= 7.593 af, Depth= 2.67"
Routed to Reach 44R :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
*	1.452	96	Gravel Impervious
	0.107	48	Brush, Good, HSG B
	0.109	65	Brush, Good, HSG C
	2.252	73	Brush, Good, HSG D
	0.186	30	Meadow, non-grazed, HSG A
	1.295	58	Meadow, non-grazed, HSG B
	17.175	71	Meadow, non-grazed, HSG C
	4.209	78	Meadow, non-grazed, HSG D
	0.092	98	Unconnected roofs, HSG C
	1.648	30	Woods, Good, HSG A
	0.349	55	Woods, Good, HSG B
	1.914	70	Woods, Good, HSG C
	3.277	77	Woods, Good, HSG D
	34.065	71	Weighted Average
	33.973		99.73% Pervious Area
	0.092		0.27% Impervious Area
	0.092		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
26.2	1,556	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.1	1,139	0.0320	3.76	13.15	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 2.0 '/' Top.W=8.00' n= 0.040 Winding stream, pools & shoals
40.7	2,795	Total			

Subcatchment 43: Subcat 43



Summary for Subcatchment 44.1S: 44.1S

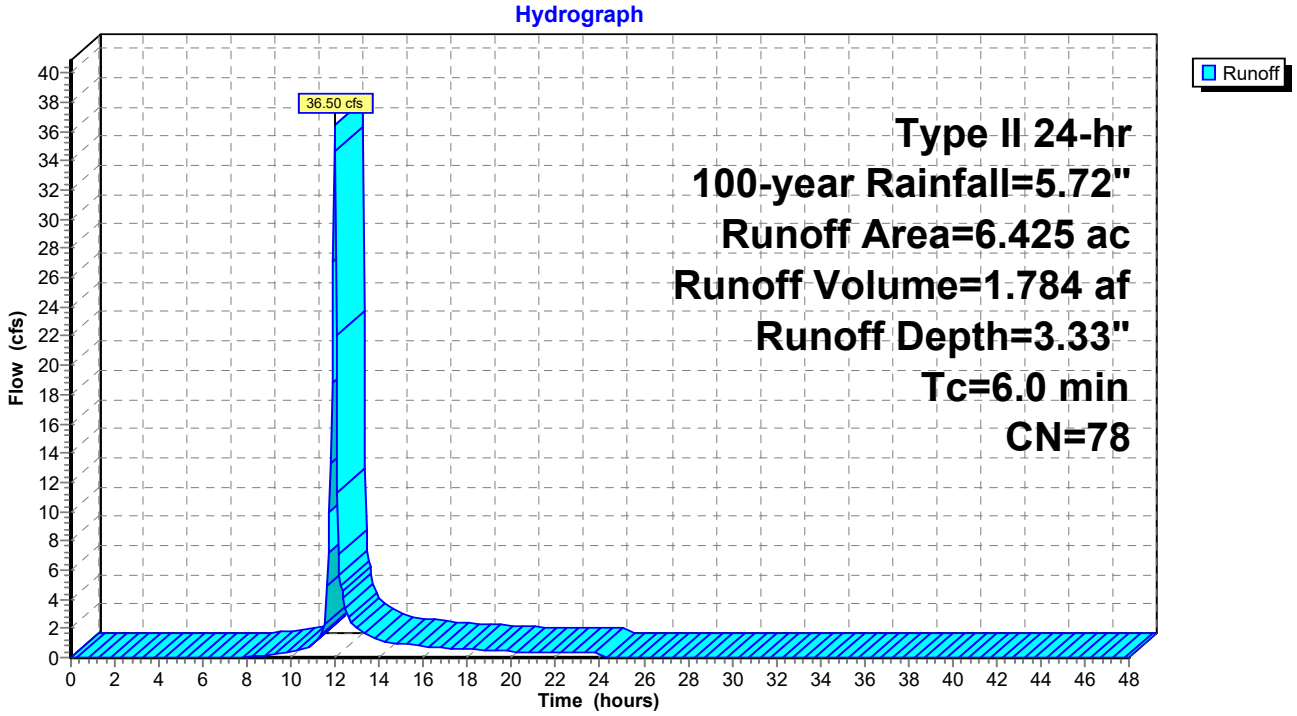
Runoff = 36.50 cfs @ 11.97 hrs, Volume= 1.784 af, Depth= 3.33"
Routed to Pond 44.1P : 44.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
*	0.766	96	Gravel
	1.461	77	Woods, Good, HSG D
	1.511	71	Meadow, non-grazed, HSG C
	2.687	78	Meadow, non-grazed, HSG D
	6.425	78	Weighted Average
	6.425		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 44.1S: 44.1S



Summary for Subcatchment 44S: 44S

[47] Hint: Peak is 1261% of capacity of segment #3
[47] Hint: Peak is 487% of capacity of segment #4

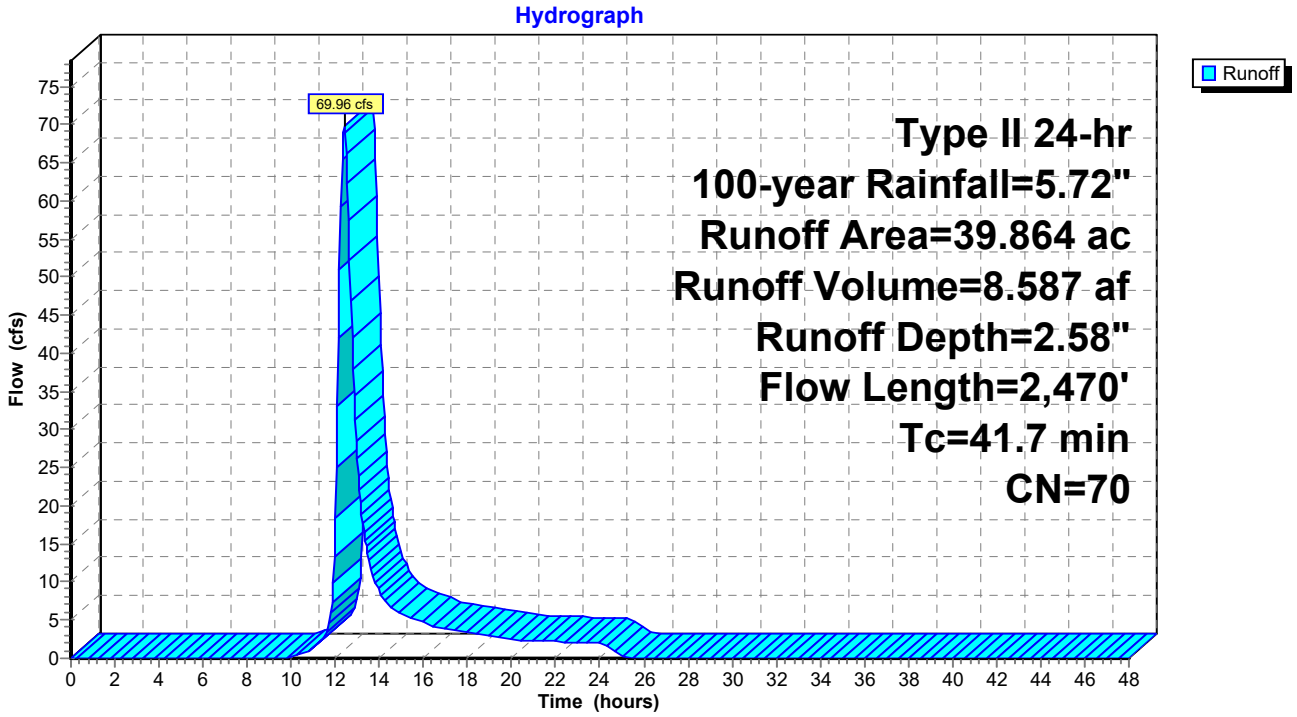
Runoff = 69.96 cfs @ 12.40 hrs, Volume= 8.587 af, Depth= 2.58"
Routed to Reach 45R :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
*	1.144	96	Gravel
	6.222	55	Woods, Good, HSG B
	7.156	70	Woods, Good, HSG C
	0.180	58	Meadow, non-grazed, HSG B
	6.882	71	Meadow, non-grazed, HSG C
	1.418	30	Woods, Good, HSG A
	0.291	30	Meadow, non-grazed, HSG A
	6.908	78	Meadow, non-grazed, HSG D
	9.663	77	Woods, Good, HSG D
	39.864	70	Weighted Average
	39.864		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.9	100	0.0260	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
9.2	409	0.0220	0.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
5.2	715	0.0320	2.31	5.55	**Parabolic Channel,** W=18.00' D=0.20' Area=2.4 sf Perim=18.0' n= 0.030 Earth, grassed & winding
5.4	1,246	0.0350	3.83	14.37	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 3.0 '/' Top.W=9.00' n= 0.040 Earth, cobble bottom, clean sides
41.7	2,470	Total			

Subcatchment 44S: 44S



Summary for Subcatchment 45: Subcat 45

[47] Hint: Peak is 428% of capacity of segment #5

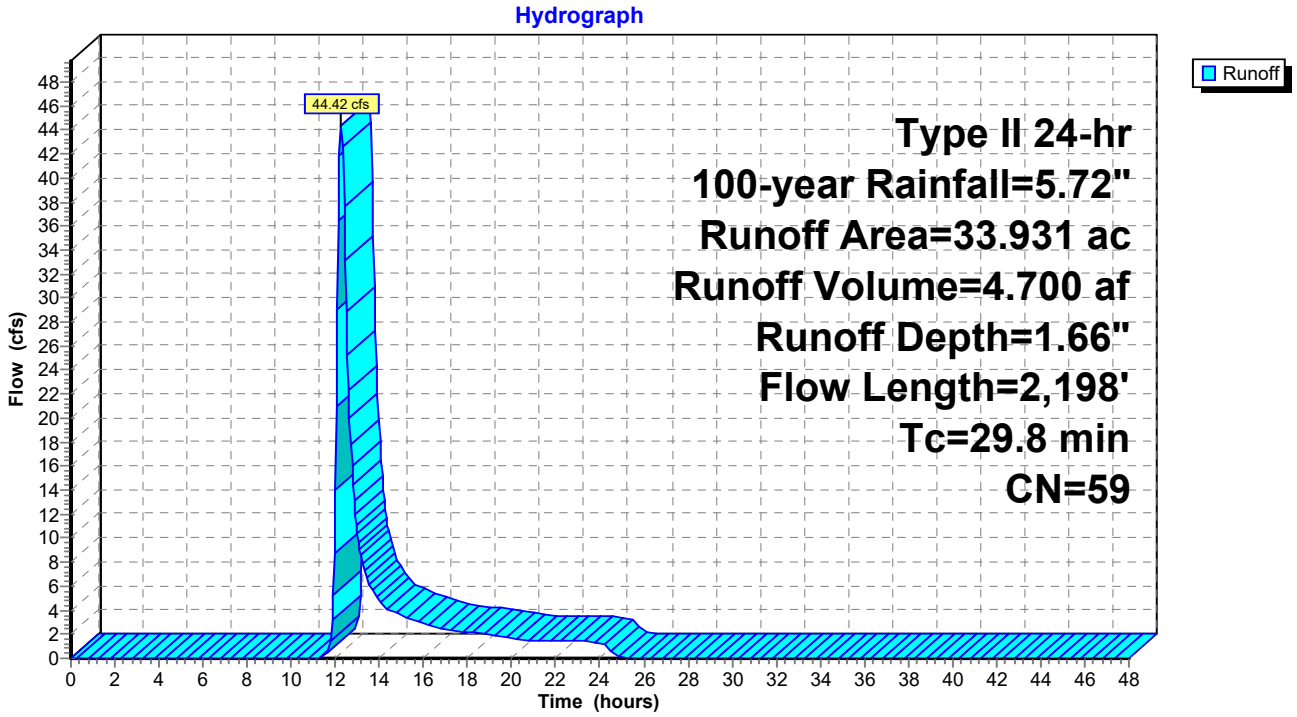
Runoff = 44.42 cfs @ 12.27 hrs, Volume= 4.700 af, Depth= 1.66"
Routed to Link SP43 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
1.898	48	Brush, Good, HSG B
0.038	65	Brush, Good, HSG C
1.297	30	Meadow, non-grazed, HSG A
13.561	58	Meadow, non-grazed, HSG B
7.566	71	Meadow, non-grazed, HSG C
3.033	78	Meadow, non-grazed, HSG D
0.074	98	Unconnected roofs, HSG C
2.408	30	Woods, Good, HSG A
3.386	55	Woods, Good, HSG B
0.357	70	Woods, Good, HSG C
0.313	77	Woods, Good, HSG D
33.931	59	Weighted Average
33.857		99.78% Pervious Area
0.074		0.22% Impervious Area
0.074		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0150	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.5	396	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	223	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	196	0.0360	0.95		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
5.7	1,283	0.0370	3.77	10.38	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=0.50' Z= 3.0 '/' Top.W=7.00' n= 0.040 Winding stream, pools & shoals
29.8	2,198	Total			

Subcatchment 45: Subcat 45



Summary for Subcatchment 46.1S: 46.1S

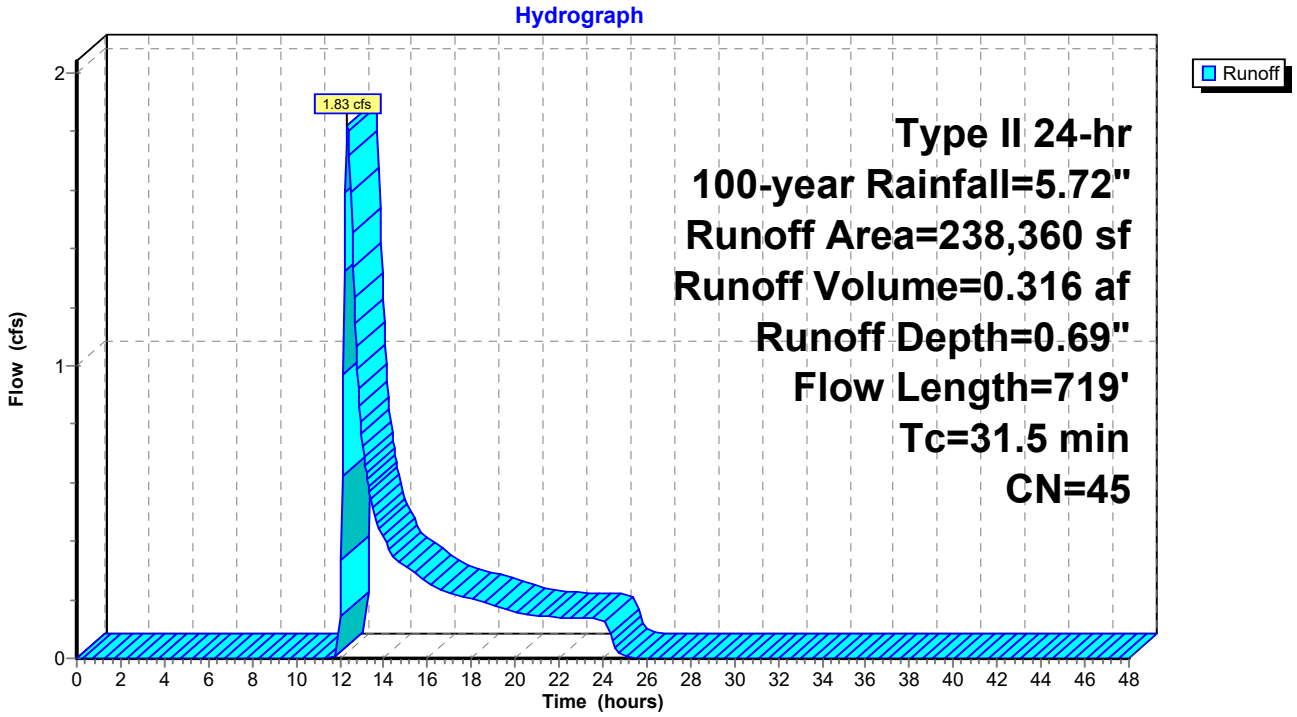
Runoff = 1.83 cfs @ 12.36 hrs, Volume= 0.316 af, Depth= 0.69"
Routed to Pond 46.1P : 46.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (sf)	CN	Description
	8,544	30	Meadow, non-grazed, HSG A
	5,734	58	Meadow, non-grazed, HSG B
	127,528	55	Woods, Good, HSG B
	5,825	30	Brush, Good, HSG A
*	3,183	96	Gravel
	87,546	30	Woods, Good, HSG A
	238,360	45	Weighted Average
	238,360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.2	100	0.0250	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
7.7	389	0.0280	0.84		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.6	230	0.2300	2.40		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	719	Total			

Subcatchment 46.1S: 46.1S



Summary for Subcatchment 46S: Subcat 46

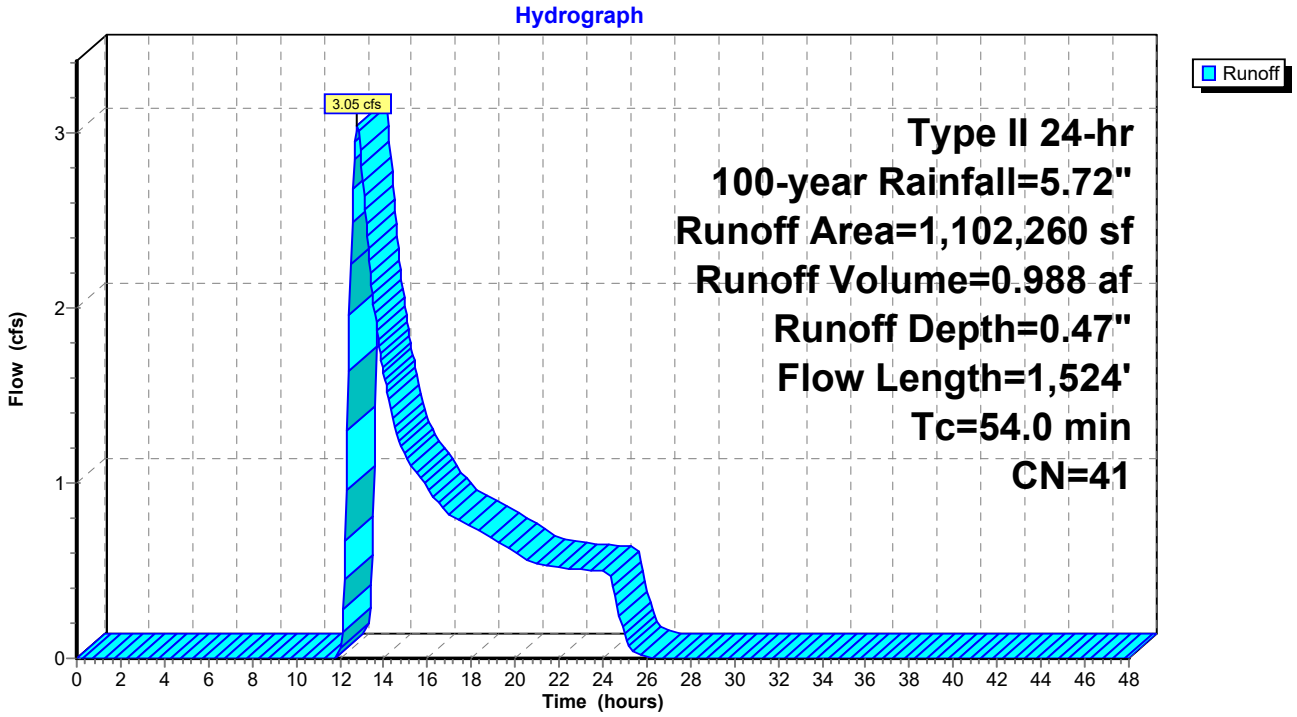
Runoff = 3.05 cfs @ 12.82 hrs, Volume= 0.988 af, Depth= 0.47"
Routed to Link SP46 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (sf)	CN	Description
	26,889	30	Brush, Good, HSG A
	7,928	48	Brush, Good, HSG B
	114,992	30	Meadow, non-grazed, HSG A
	61,059	58	Meadow, non-grazed, HSG B
	537,985	30	Woods, Good, HSG A
	282,460	55	Woods, Good, HSG B
	48,918	77	Woods, Good, HSG D
*	22,029	96	Gravel
	1,102,260	41	Weighted Average
	1,102,260		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
36.5	774	0.0050	0.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
5.2	153	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	245	0.4120	3.21		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	79	0.0510	1.13		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.4	173		6.95		**Lake or Reservoir,** Mean Depth= 1.50'
54.0	1,524	Total			

Subcatchment 46S: Subcat 46



Summary for Subcatchment 47S: Sub 47

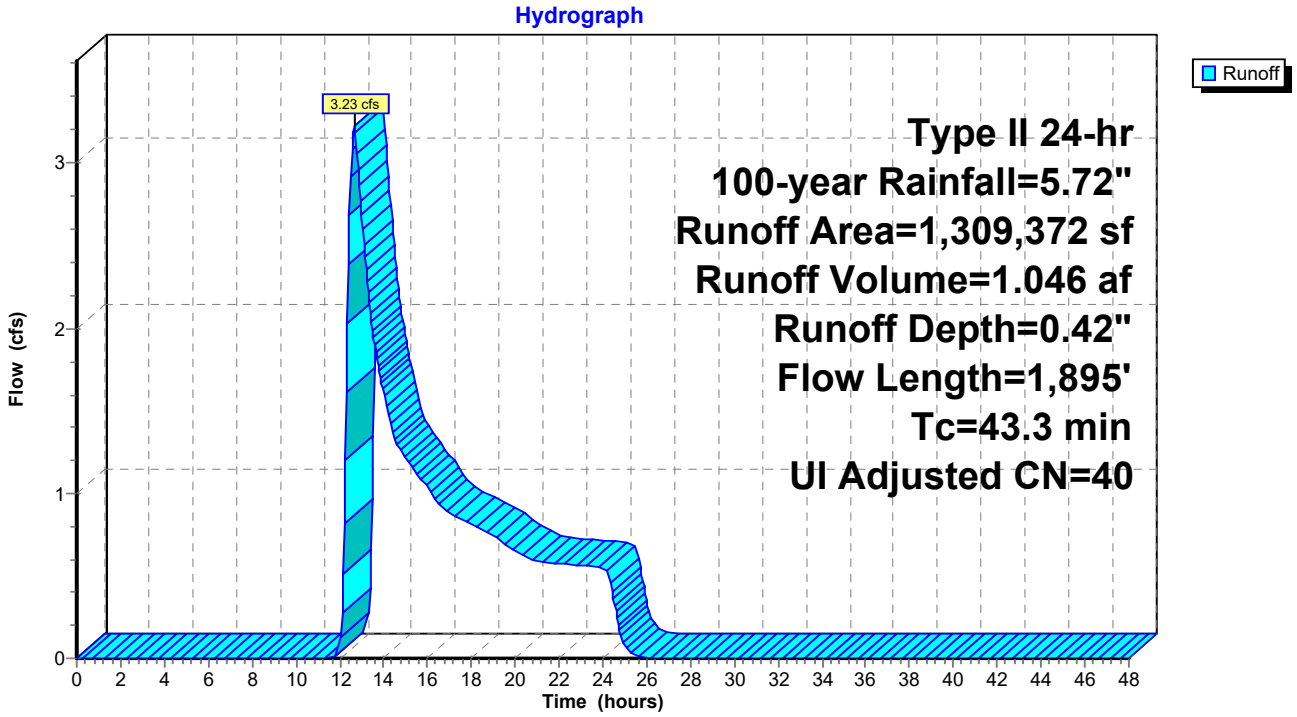
Runoff = 3.23 cfs @ 12.66 hrs, Volume= 1.046 af, Depth= 0.42"
Routed to Link SP47 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (sf)	CN	Adj	Description
16,402	98		Unconnected pavement, HSG D
18,822	96		Gravel surface, HSG D
21,696	39		>75% Grass cover, Good, HSG A
88,176	61		>75% Grass cover, Good, HSG B
766,671	30		Meadow, non-grazed, HSG A
115,153	58		Meadow, non-grazed, HSG B
2,236	30		Brush, Good, HSG A
30,584	48		Brush, Good, HSG B
47,190	30		Woods, Good, HSG A
202,442	55		Woods, Good, HSG B
1,309,372	41	40	Weighted Average, UI Adjusted
1,292,970			98.75% Pervious Area
16,402			1.25% Impervious Area
16,402			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.2550	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
25.9	1,688	0.0240	1.08		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	107	0.0280	0.84		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
43.3	1,895	Total			

Subcatchment 47S: Sub 47



Summary for Reach 6R: W-NSD-35

[91] Warning: Storage range exceeded by 0.52'
[55] Hint: Peak inflow is 293% of Manning's capacity

Inflow Area = 58.963 ac, 0.00% Impervious, Inflow Depth = 2.50" for 100-year event
Inflow = 73.45 cfs @ 12.69 hrs, Volume= 12.263 af
Outflow = 71.69 cfs @ 12.89 hrs, Volume= 12.263 af, Atten= 2%, Lag= 12.1 min
Routed to Link SP5 :

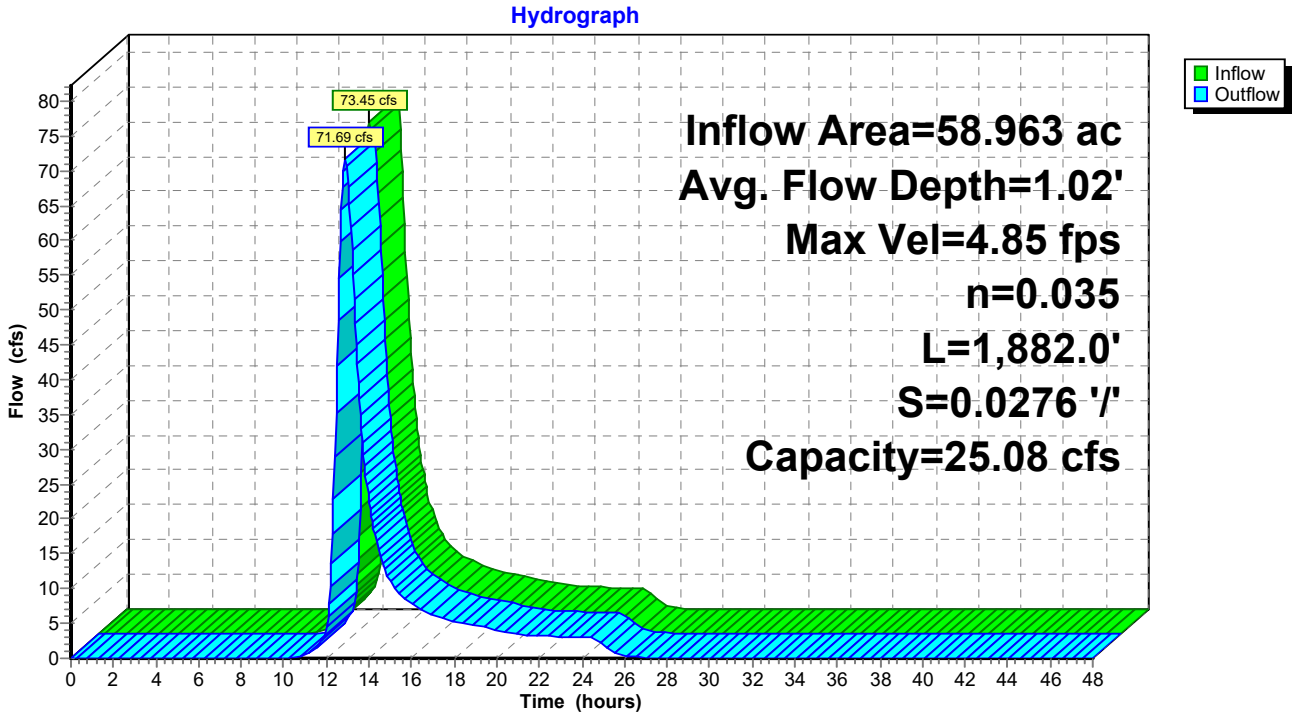
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.85 fps, Min. Travel Time= 6.5 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 27.1 min

Peak Storage= 27,849 cf @ 12.78 hrs
Average Depth at Peak Storage= 1.02' , Surface Width= 22.23'
Bank-Full Depth= 0.50' Flow Area= 6.5 sf, Capacity= 25.08 cfs

10.00' x 0.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 16.00'
Length= 1,882.0' Slope= 0.0276 '/'
Inlet Invert= 542.00', Outlet Invert= 490.00'

‡

Reach 6R: W-NSD-35



Summary for Reach 13.1R:

[79] Warning: Submerged Pond 12P Primary device # 1 OUTLET by 0.09'

Inflow Area = 4.859 ac, 53.67% Impervious, Inflow Depth = 5.37" for 100-year event
Inflow = 1.61 cfs @ 13.21 hrs, Volume= 2.173 af
Outflow = 1.61 cfs @ 13.24 hrs, Volume= 2.173 af, Atten= 0%, Lag= 2.0 min
Routed to Reach 13.2R :

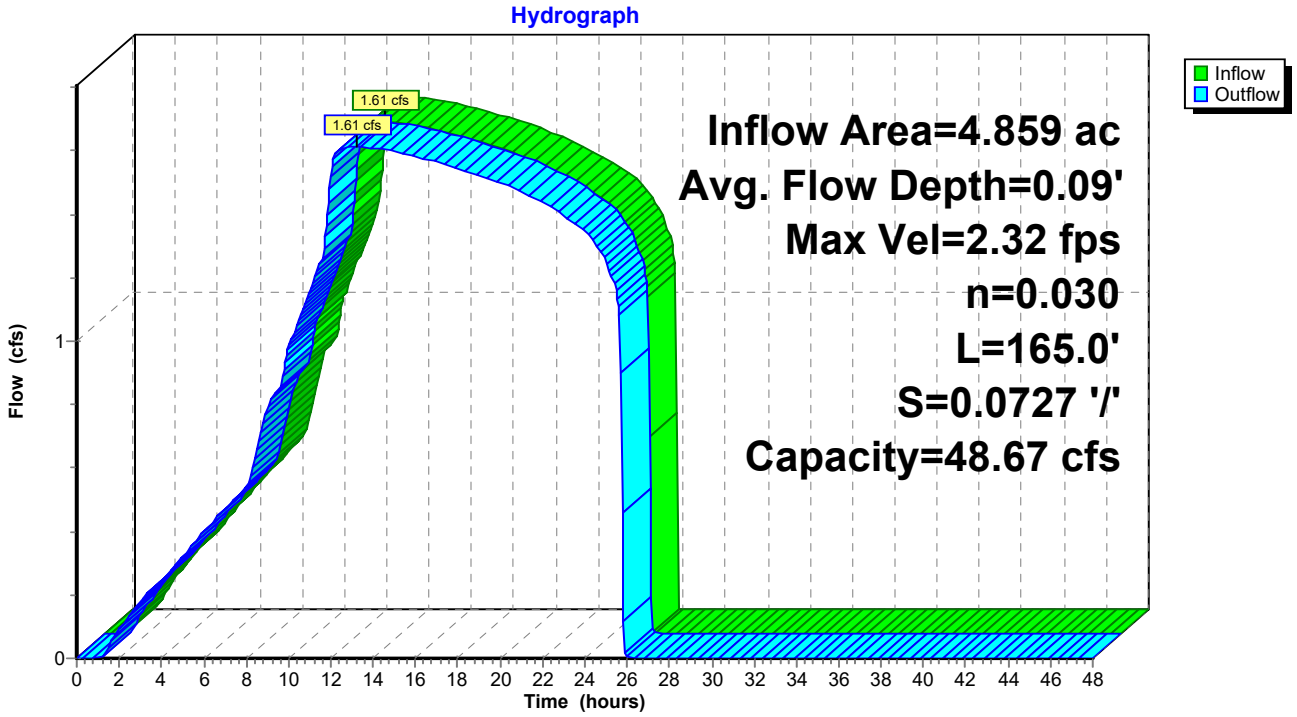
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.32 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.88 fps, Avg. Travel Time= 1.5 min

Peak Storage= 114 cf @ 13.22 hrs
Average Depth at Peak Storage= 0.09' , Surface Width= 9.56'
Bank-Full Depth= 0.50' Flow Area= 8.0 sf, Capacity= 48.67 cfs

6.00' x 0.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 20.0 '/' Top Width= 26.00'
Length= 165.0' Slope= 0.0727 '/'
Inlet Invert= 504.00', Outlet Invert= 492.00'

‡

Reach 13.1R:


Hydrograph
Inflow
Outflow
1.61 cfs
1.61 cfs
Inflow Area=4.859 ac
Avg. Flow Depth=0.09'
Max Vel=2.32 fps
n=0.030
L=165.0'
S=0.0727 '/'
Capacity=48.67 cfs
Flow (cfs)
0
1
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Reach 13.2R:

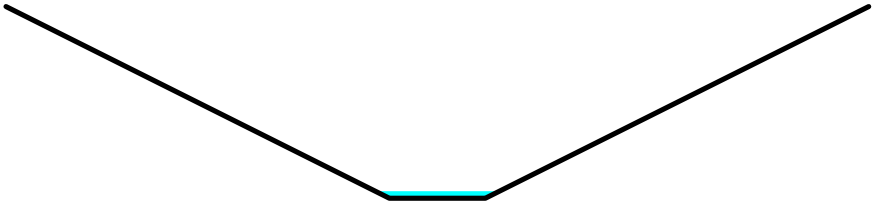
[62] Hint: Exceeded Reach 13.1R OUTLET depth by 0.06' @ 13.30 hrs

Inflow Area = 4.859 ac, 53.67% Impervious, Inflow Depth = 5.37" for 100-year event
Inflow = 1.61 cfs @ 13.24 hrs, Volume= 2.173 af
Outflow = 1.61 cfs @ 13.27 hrs, Volume= 2.173 af, Atten= 0%, Lag= 1.3 min
Routed to Link SP13 :

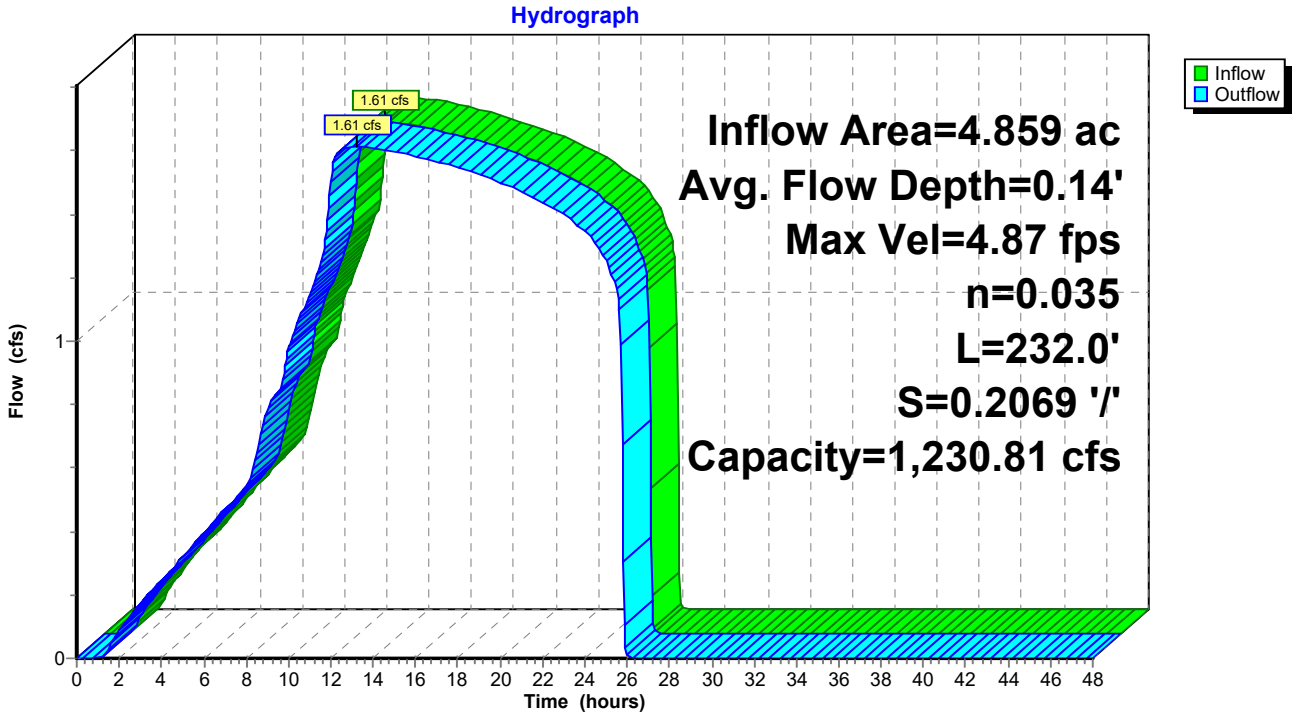
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.87 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 4.00 fps, Avg. Travel Time= 1.0 min

Peak Storage= 77 cf @ 13.25 hrs
Average Depth at Peak Storage= 0.14' , Surface Width= 2.58'
Bank-Full Depth= 4.00' Flow Area= 40.0 sf, Capacity= 1,230.81 cfs

2.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 '/' Top Width= 18.00'
Length= 232.0' Slope= 0.2069 '/'
Inlet Invert= 492.00', Outlet Invert= 444.00'



Reach 13.2R:


Hydrograph
Inflow
Outflow
1.61 cfs
1.61 cfs
Inflow Area=4.859 ac
Avg. Flow Depth=0.14'
Max Vel=4.87 fps
n=0.035
L=232.0'
S=0.2069 '/'
Capacity=1,230.81 cfs
Flow (cfs)
0
1
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Reach 20.1R: S-KCF-6

[91] Warning: Storage range exceeded by 0.55'
[55] Hint: Peak inflow is 158% of Manning's capacity

Inflow Area = 98.932 ac, 0.71% Impervious, Inflow Depth = 2.39" for 100-year event
Inflow = 223.20 cfs @ 12.17 hrs, Volume= 19.682 af
Outflow = 204.13 cfs @ 12.35 hrs, Volume= 19.682 af, Atten= 9%, Lag= 10.7 min
Routed to Reach 20.2R :

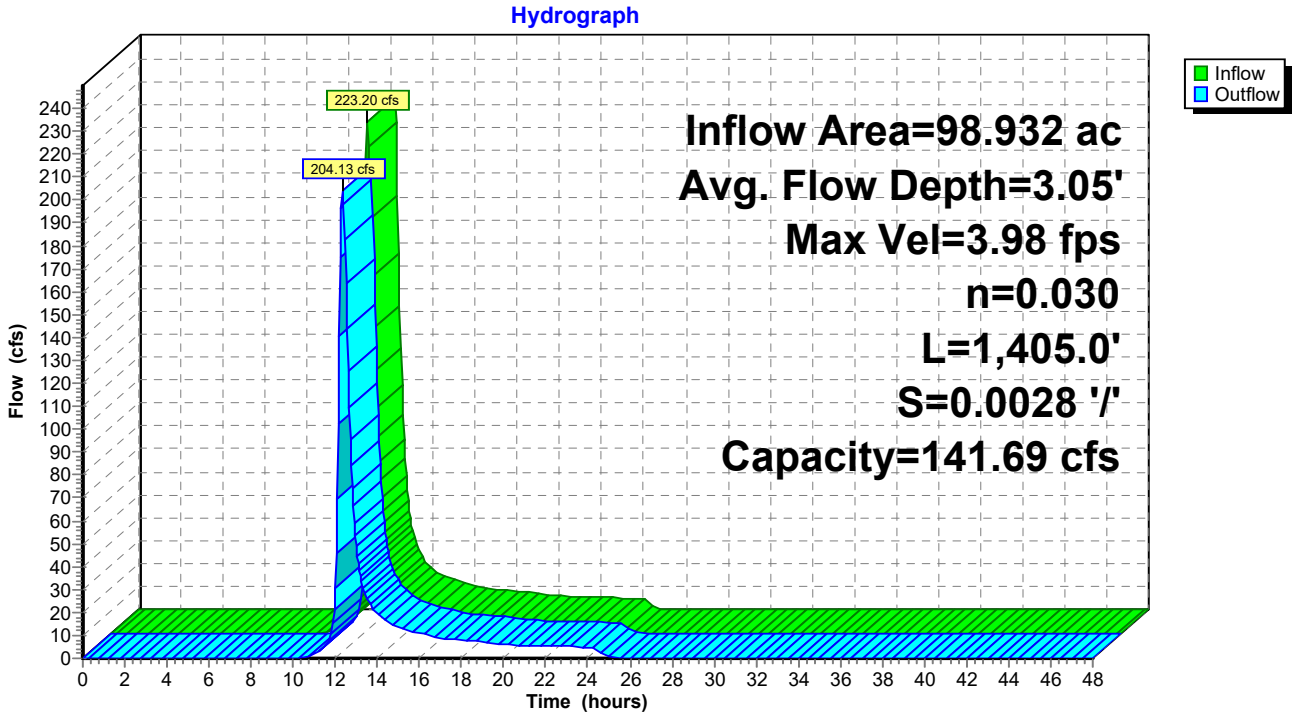
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.98 fps, Min. Travel Time= 5.9 min
Avg. Velocity = 0.90 fps, Avg. Travel Time= 26.0 min

Peak Storage= 72,093 cf @ 12.25 hrs
Average Depth at Peak Storage= 3.05' , Surface Width= 26.29'
Bank-Full Depth= 2.50' Flow Area= 38.8 sf, Capacity= 141.69 cfs

8.00' x 2.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 '/' Top Width= 23.00'
Length= 1,405.0' Slope= 0.0028 '/'
Inlet Invert= 494.00', Outlet Invert= 490.00'

‡

Reach 20.1R: S-KCF-6



Summary for Reach 20.2R:

[62] Hint: Exceeded Reach 20.1R OUTLET depth by 0.02' @ 24.95 hrs

Inflow Area = 98.932 ac, 0.71% Impervious, Inflow Depth = 2.39" for 100-year event
Inflow = 204.13 cfs @ 12.35 hrs, Volume= 19.682 af
Outflow = 197.64 cfs @ 12.46 hrs, Volume= 19.682 af, Atten= 3%, Lag= 6.6 min
Routed to Reach 22.2R :

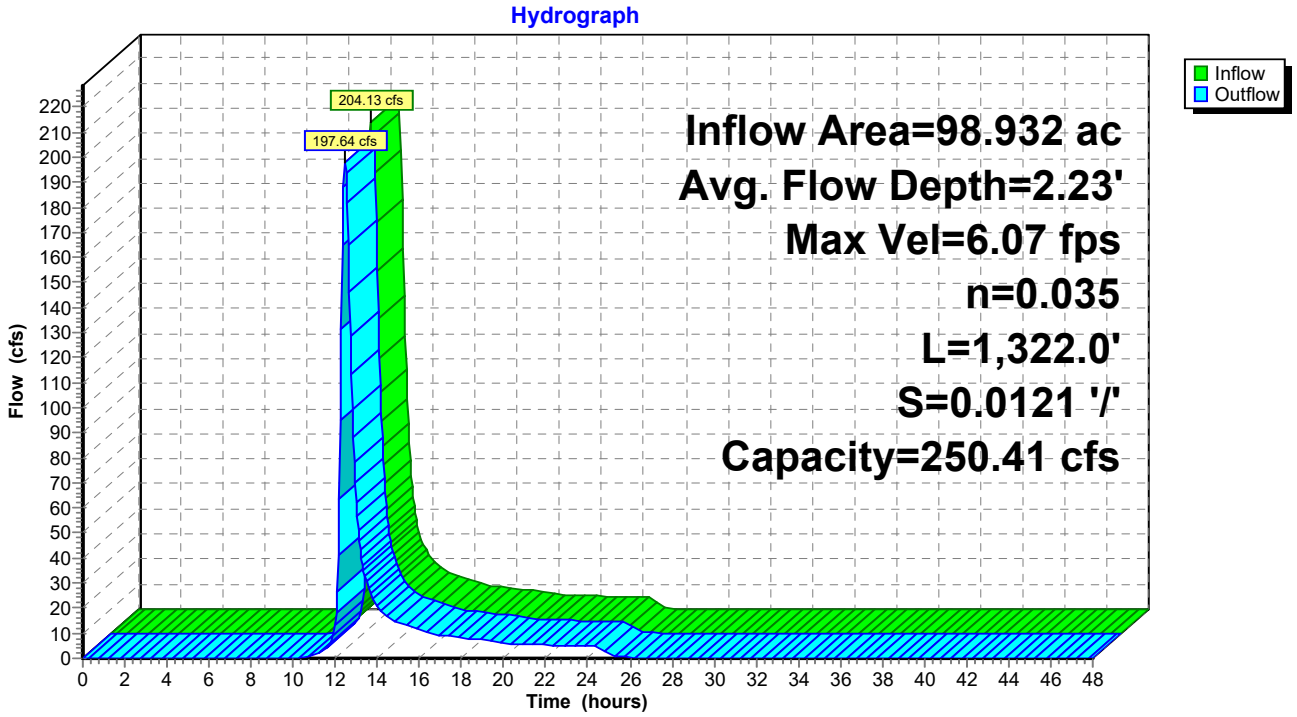
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.07 fps, Min. Travel Time= 3.6 min
Avg. Velocity = 1.35 fps, Avg. Travel Time= 16.4 min

Peak Storage= 43,264 cf @ 12.40 hrs
Average Depth at Peak Storage= 2.23' , Surface Width= 21.37'
Bank-Full Depth= 2.50' Flow Area= 38.8 sf, Capacity= 250.41 cfs

8.00' x 2.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 3.0 '/' Top Width= 23.00'
Length= 1,322.0' Slope= 0.0121 '/'
Inlet Invert= 490.00', Outlet Invert= 474.00'

‡

Reach 20.2R:


Hydrograph
Inflow
Outflow
204.13 cfs
197.64 cfs
Inflow Area=98.932 ac
Avg. Flow Depth=2.23'
Max Vel=6.07 fps
n=0.035
L=1,322.0'
S=0.0121 '/'
Capacity=250.41 cfs
Flow (cfs)
Time (hours)

Summary for Reach 22.1R: S-KCF-5

[91] Warning: Storage range exceeded by 0.88'
[55] Hint: Peak inflow is 210% of Manning's capacity

Inflow Area = 123.016 ac, 3.33% Impervious, Inflow Depth = 2.32" for 100-year event
Inflow = 188.59 cfs @ 12.41 hrs, Volume= 23.791 af
Outflow = 186.82 cfs @ 12.49 hrs, Volume= 23.791 af, Atten= 1%, Lag= 4.4 min
Routed to Reach 22.2R :

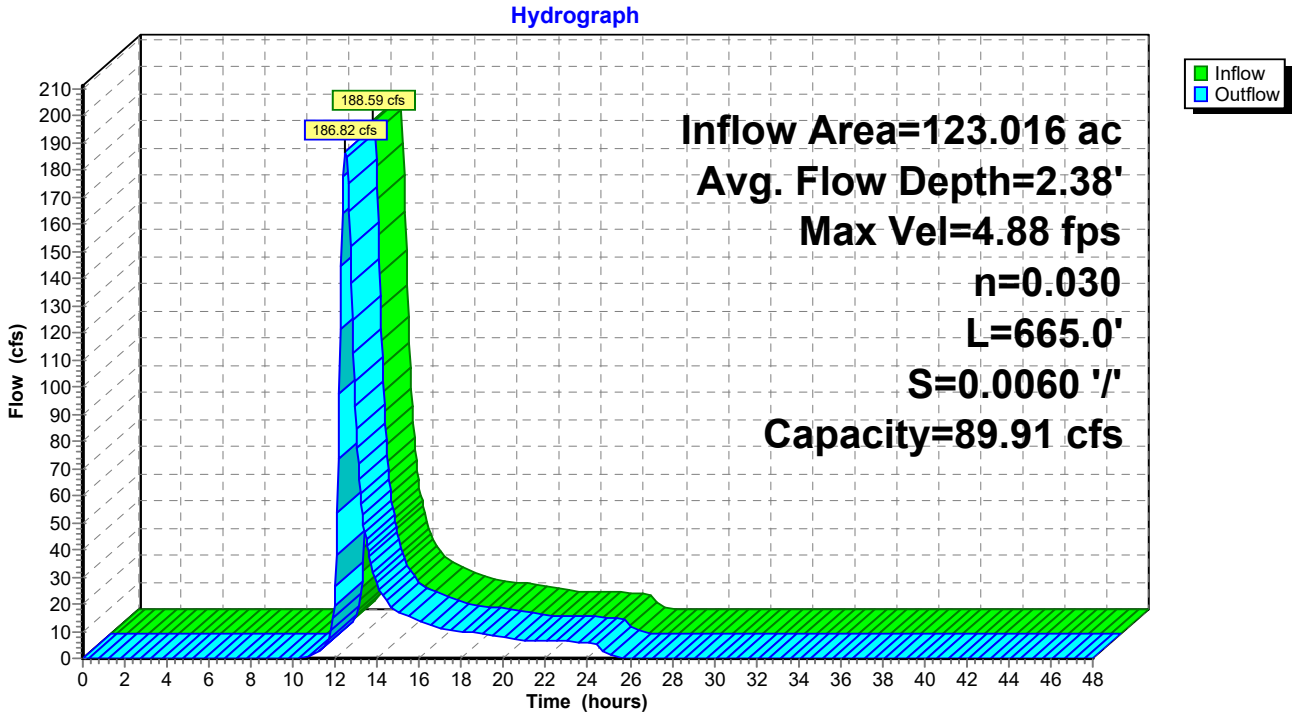
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.88 fps, Min. Travel Time= 2.3 min
Avg. Velocity = 1.50 fps, Avg. Travel Time= 7.4 min

Peak Storage= 25,538 cf @ 12.45 hrs
Average Depth at Peak Storage= 2.38' , Surface Width= 24.27'
Bank-Full Depth= 1.50' Flow Area= 21.8 sf, Capacity= 89.91 cfs

10.00' x 1.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 '/' Top Width= 19.00'
Length= 665.0' Slope= 0.0060 '/'
Inlet Invert= 478.00', Outlet Invert= 474.00'

‡

Reach 22.1R: S-KCF-5



Summary for Reach 22.2R:

[91] Warning: Storage range exceeded by 2.76'
[55] Hint: Peak inflow is 445% of Manning's capacity
[62] Hint: Exceeded Reach 20.2R OUTLET depth by 2.20' @ 12.55 hrs
[64] Warning: Exceeded Reach 20.2R outlet bank by 1.76' @ 12.51 hrs
[62] Hint: Exceeded Reach 22.1R OUTLET depth by 1.91' @ 12.55 hrs
[64] Warning: Exceeded Reach 22.1R outlet bank by 2.76' @ 12.51 hrs

Inflow Area = 221.948 ac, 2.16% Impervious, Inflow Depth = 2.35" for 100-year event
Inflow = 384.08 cfs @ 12.47 hrs, Volume= 43.473 af
Outflow = 378.09 cfs @ 12.55 hrs, Volume= 43.473 af, Atten= 2%, Lag= 4.7 min
Routed to Link SP22 :

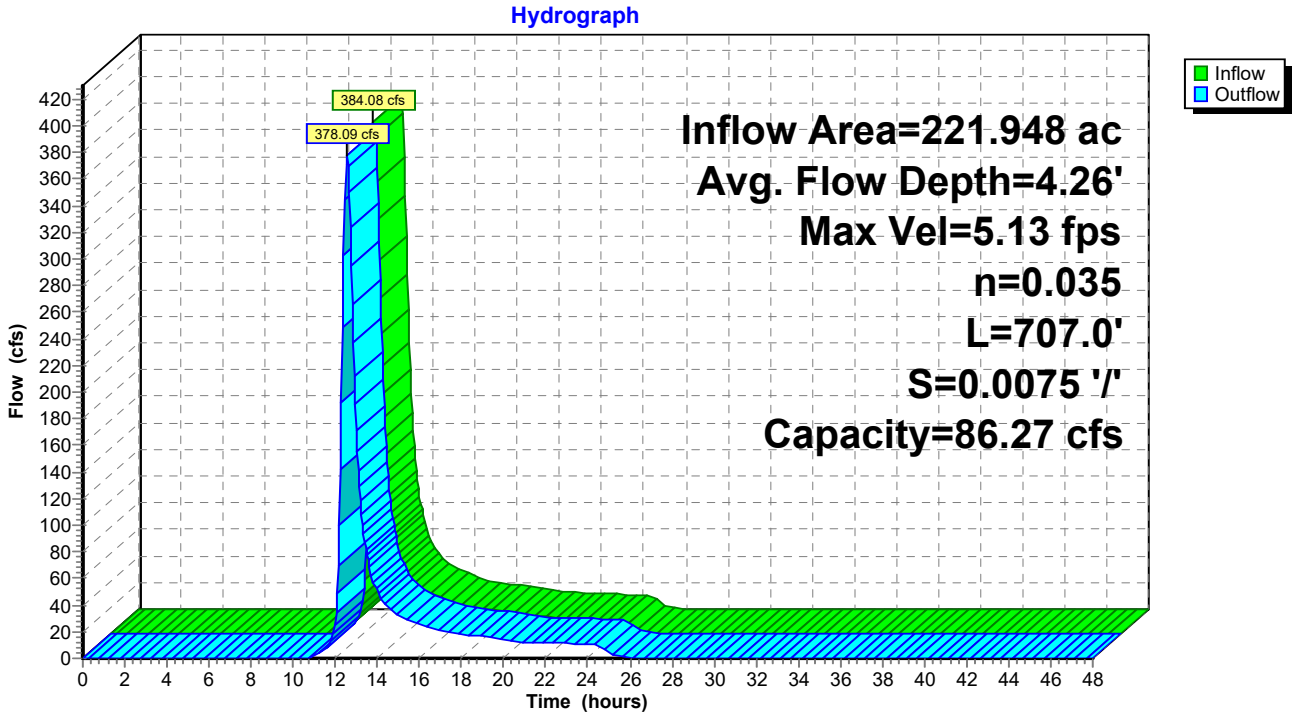
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.13 fps, Min. Travel Time= 2.3 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 9.4 min

Peak Storage= 52,316 cf @ 12.51 hrs
Average Depth at Peak Storage= 4.26' , Surface Width= 35.54'
Bank-Full Depth= 1.50' Flow Area= 21.8 sf, Capacity= 86.27 cfs

10.00' x 1.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 3.0 '/' Top Width= 19.00'
Length= 707.0' Slope= 0.0075 '/'
Inlet Invert= 474.00', Outlet Invert= 468.67'

‡

Reach 22.2R:


Hydrograph
Inflow
Outflow
384.08 cfs
378.09 cfs
Inflow Area=221.948 ac
Avg. Flow Depth=4.26'
Max Vel=5.13 fps
n=0.035
L=707.0'
S=0.0075 '/'
Capacity=86.27 cfs
Flow (cfs)
Time (hours)

Summary for Reach 44R:

[91] Warning: Storage range exceeded by 1.45'
[55] Hint: Peak inflow is 726% of Manning's capacity

Inflow Area = 34.065 ac, 0.27% Impervious, Inflow Depth = 2.67" for 100-year event
Inflow = 63.14 cfs @ 12.38 hrs, Volume= 7.593 af
Outflow = 62.62 cfs @ 12.45 hrs, Volume= 7.593 af, Atten= 1%, Lag= 3.9 min
Routed to Reach 45R :

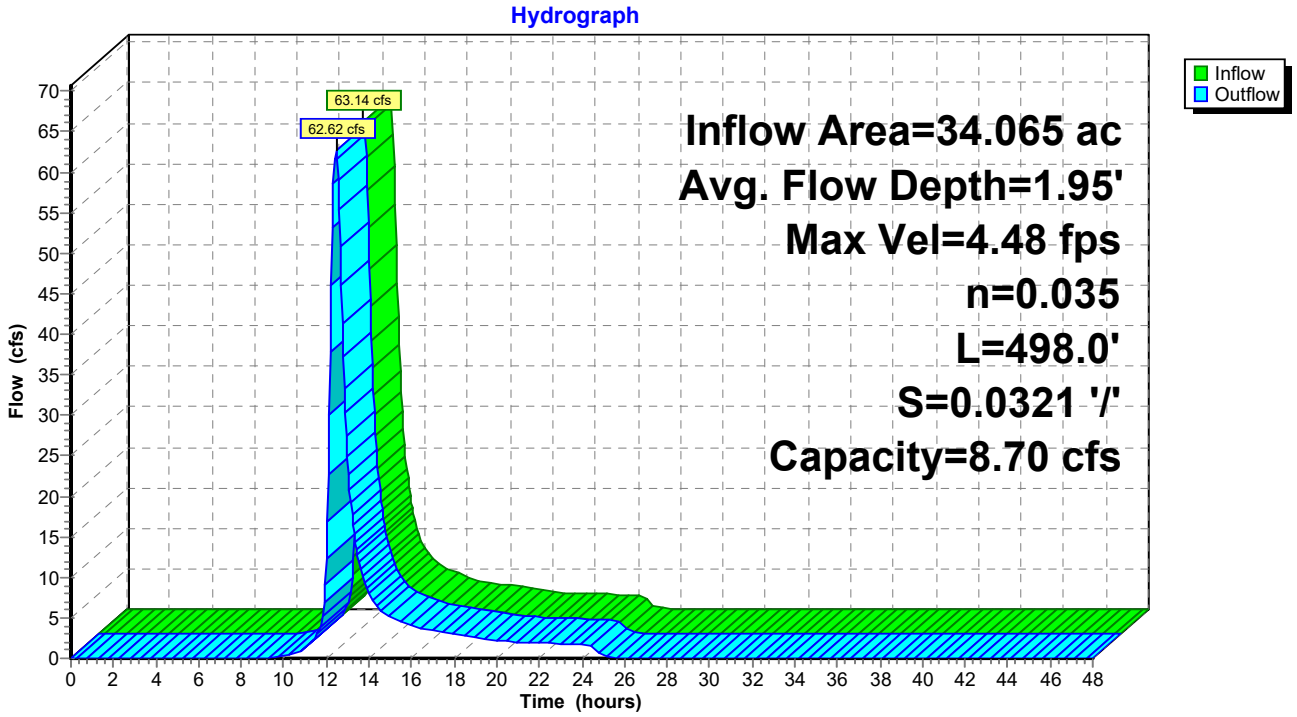
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.48 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 2.08 fps, Avg. Travel Time= 4.0 min

Peak Storage= 6,988 cf @ 12.42 hrs
Average Depth at Peak Storage= 1.95' , Surface Width= 25.36'
Bank-Full Depth= 0.50' Flow Area= 2.5 sf, Capacity= 8.70 cfs

2.00' x 0.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 8.00'
Length= 498.0' Slope= 0.0321 '/'
Inlet Invert= 404.00', Outlet Invert= 388.00'

‡

Reach 44R:


Hydrograph
Inflow
Outflow
63.14 cfs
62.62 cfs
Inflow Area=34.065 ac
Avg. Flow Depth=1.95'
Max Vel=4.48 fps
n=0.035
L=498.0'
S=0.0321 '/'
Capacity=8.70 cfs
Flow (cfs)
Time (hours)
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

Summary for Reach 45R:

[91] Warning: Storage range exceeded by 2.08'
[55] Hint: Peak inflow is 815% of Manning's capacity
[62] Hint: Exceeded Reach 44R OUTLET depth by 0.66' @ 12.50 hrs
[64] Warning: Exceeded Reach 44R outlet bank by 2.08' @ 12.45 hrs

Inflow Area = 73.929 ac, 0.12% Impervious, Inflow Depth = 2.63" for 100-year event
Inflow = 132.17 cfs @ 12.42 hrs, Volume= 16.180 af
Outflow = 131.32 cfs @ 12.47 hrs, Volume= 16.180 af, Atten= 1%, Lag= 2.7 min
Routed to Link SP43 :

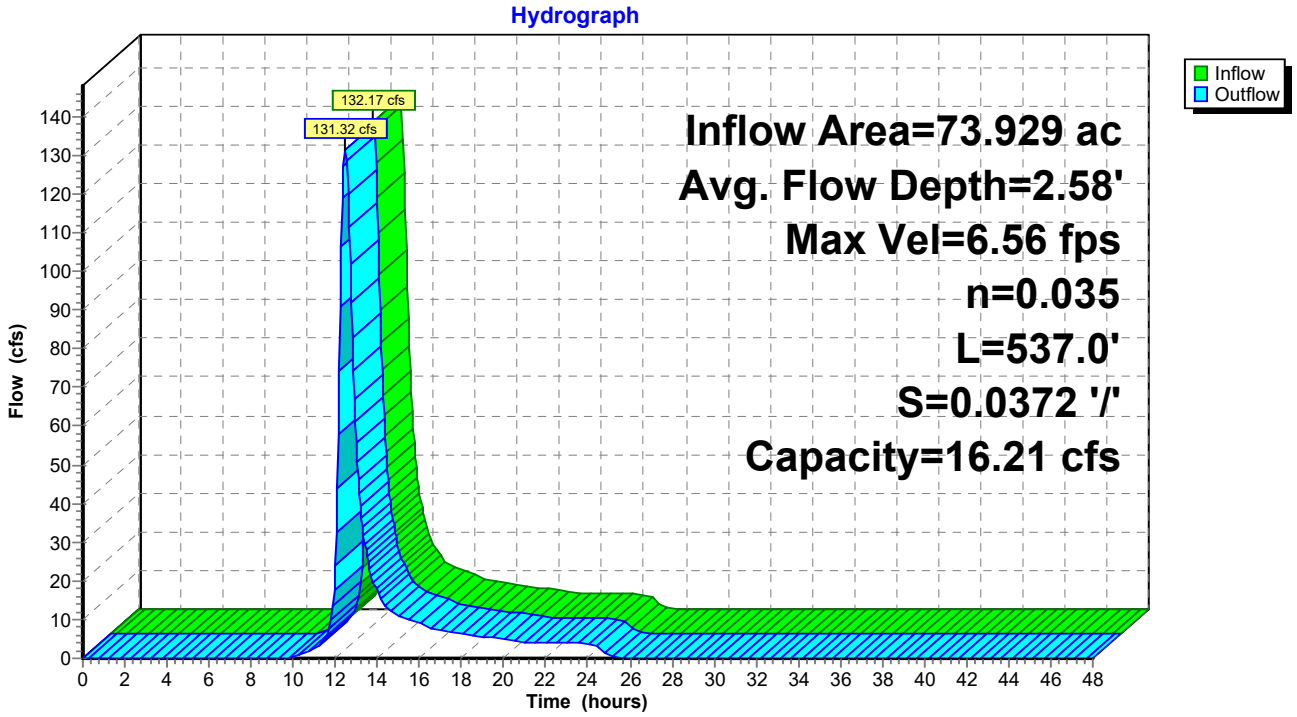
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.56 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 2.52 fps, Avg. Travel Time= 3.5 min

Peak Storage= 10,787 cf @ 12.45 hrs
Average Depth at Peak Storage= 2.58' , Surface Width= 16.30'
Bank-Full Depth= 0.50' Flow Area= 3.5 sf, Capacity= 16.21 cfs

6.00' x 0.50' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 '/' Top Width= 8.00'
Length= 537.0' Slope= 0.0372 '/'
Inlet Invert= 388.00', Outlet Invert= 368.00'

‡

Reach 45R:


Hydrograph
Inflow
Outflow
132.17 cfs
131.32 cfs
Inflow Area=73.929 ac
Avg. Flow Depth=2.58'
Max Vel=6.56 fps
n=0.035
L=537.0'
S=0.0372 '/'
Capacity=16.21 cfs
Flow (cfs)
Time (hours)

Summary for Pond 4.1P: 4.1P

[92] Warning: Device #4 is above defined storage

Inflow Area = 15.089 ac, 0.00% Impervious, Inflow Depth = 2.41" for 100-year event
Inflow = 63.29 cfs @ 11.98 hrs, Volume= 3.028 af
Outflow = 2.43 cfs @ 13.91 hrs, Volume= 2.225 af, Atten= 96%, Lag= 116.0 min
Primary = 2.43 cfs @ 13.91 hrs, Volume= 2.225 af
Routed to Link SP4 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP4 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 494.62' @ 13.91 hrs Surf.Area= 28,372 sf Storage= 81,527 cf

Plug-Flow detention time= 768.5 min calculated for 2.223 af (73% of inflow)
Center-of-Mass det. time= 668.3 min (1,510.5 - 842.2)

Volume	Invert	Avail.Storage	Storage Description
#1	491.50'	106,981 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

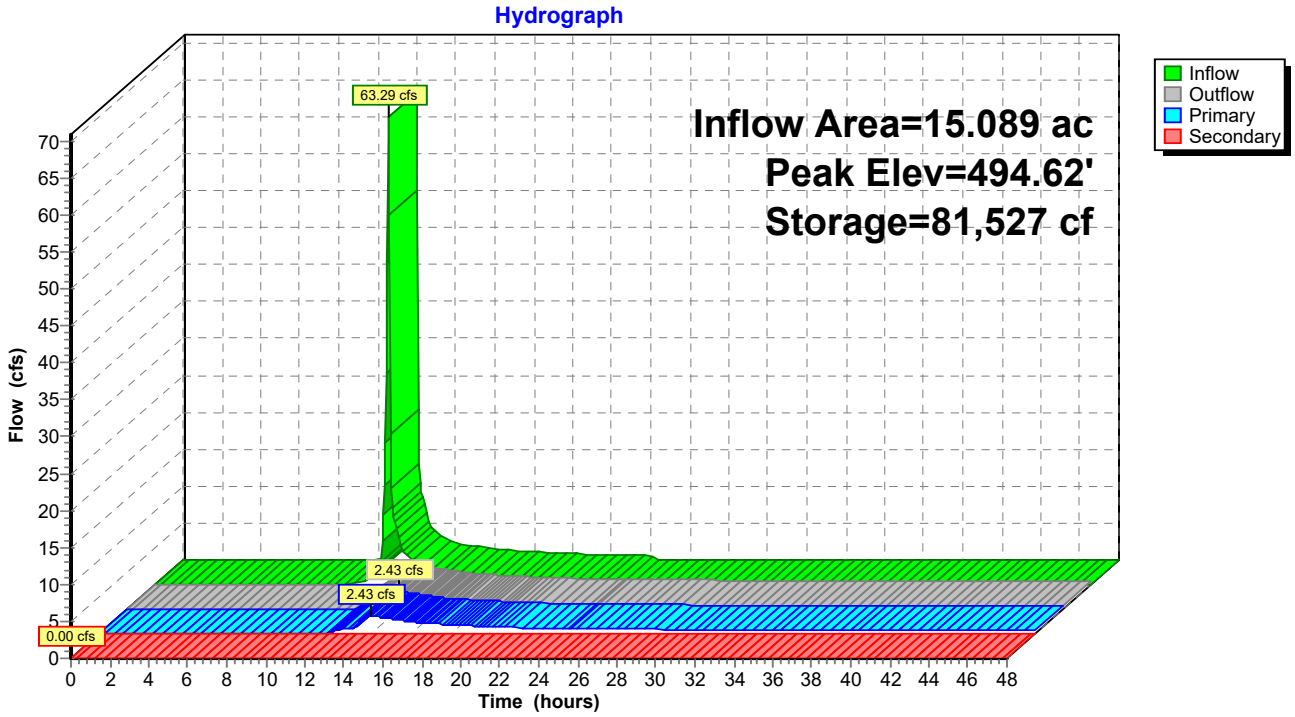
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
491.50	23,879	0	0
492.00	24,582	12,115	12,115
493.00	26,006	25,294	37,409
494.00	27,454	26,730	64,139
495.00	28,928	28,191	92,330
495.50	29,674	14,651	106,981

Device	Routing	Invert	Outlet Devices
#1	Primary	491.50'	**12.0" Round Culvert** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 491.50' / 491.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	494.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	492.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.50'	**6.0' long + 2.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=2.43 cfs @ 13.91 hrs HW=494.62' (Free Discharge)
└**1=Culvert** (Passes 2.43 cfs of 4.84 cfs potential flow)
├**2=Orifice/Grate** (Weir Controls 1.77 cfs @ 1.15 fps)
└**3=Orifice/Grate** (Orifice Controls 0.66 cfs @ 7.55 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.50' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 4.1P: 4.1P


Hydrograph
Inflow Area=15.089 ac
Peak Elev=494.62'
Storage=81,527 cf
63.29 cfs
2.43 cfs
2.43 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

Summary for Pond 7.1P:

Inflow Area = 4.575 ac, 0.00% Impervious, Inflow Depth = 1.66" for 100-year event
Inflow = 9.21 cfs @ 12.08 hrs, Volume= 0.634 af
Outflow = 0.19 cfs @ 23.45 hrs, Volume= 0.037 af, Atten= 98%, Lag= 682.0 min
Primary = 0.19 cfs @ 23.45 hrs, Volume= 0.037 af
Routed to Link SP7 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP7 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 515.02' @ 23.45 hrs Surf.Area= 11,016 sf Storage= 26,225 cf

Plug-Flow detention time= 691.8 min calculated for 0.037 af (6% of inflow)
Center-of-Mass det. time= 529.4 min (1,403.1 - 873.7)

Volume	Invert	Avail.Storage	Storage Description
#1	512.00'	37,773 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

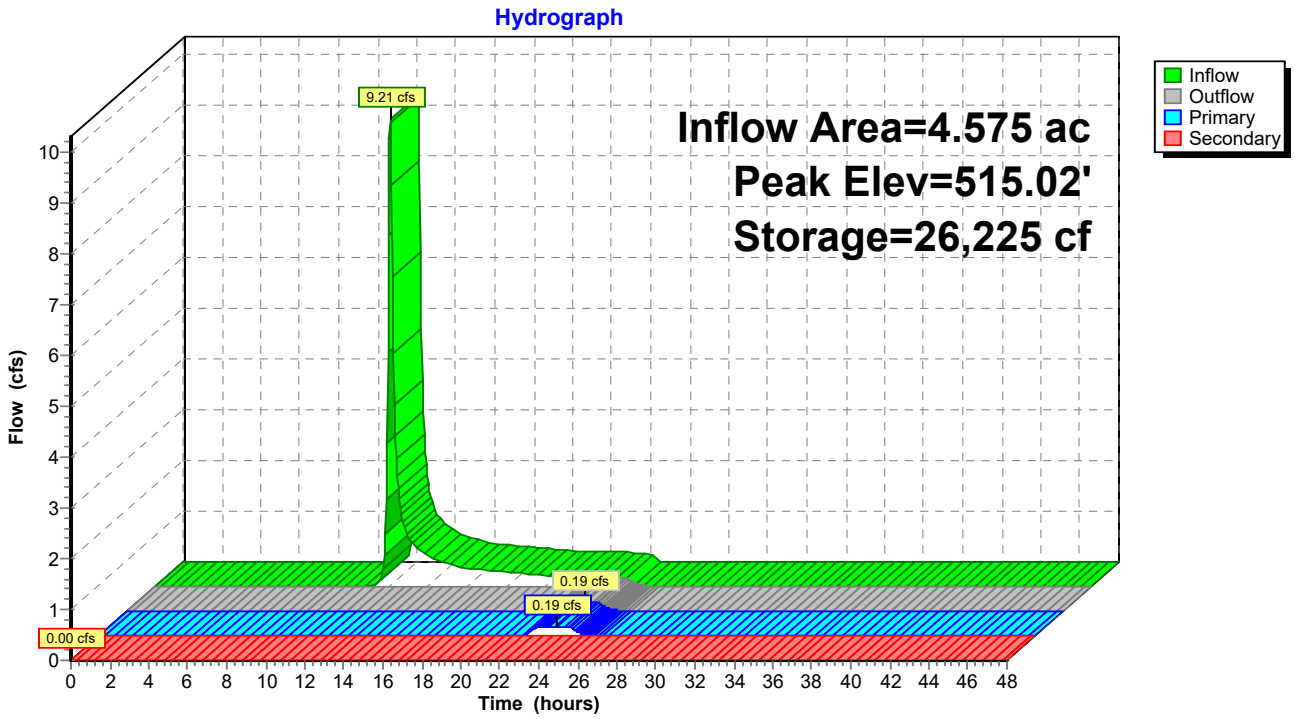
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
512.00	6,414	0	0
513.00	7,879	7,147	7,147
514.00	9,401	8,640	15,787
515.00	10,979	10,190	25,977
516.00	12,614	11,797	37,773

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 512.00' / 510.00' S= 0.0606 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	515.00'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	512.25'	**4.0" Vert. Orifice/Grate X 0.00** C= 0.600 Limited to weir flow at low heads
#4	Secondary	515.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.14 cfs @ 23.45 hrs HW=515.02' (Free Discharge)
└**1=Culvert** (Passes 0.14 cfs of 4.74 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.49 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7.1P:


Hydrograph
Inflow Area=4.575 ac
Peak Elev=515.02'
Storage=26,225 cf
9.21 cfs
0.19 cfs
0.19 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
0 1 2 3 4 5 6 7 8 9 10

Summary for Pond 9.1P: 9.1P

Inflow Area = 8.972 ac, 0.00% Impervious, Inflow Depth = 2.86" for 100-year event
Inflow = 20.26 cfs @ 12.30 hrs, Volume= 2.137 af
Outflow = 10.06 cfs @ 12.67 hrs, Volume= 1.914 af, Atten= 50%, Lag= 22.1 min
Primary = 5.43 cfs @ 12.65 hrs, Volume= 1.623 af
Routed to Link SP9 :
Secondary = 4.63 cfs @ 12.67 hrs, Volume= 0.291 af
Routed to Link SP9 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 469.81' @ 12.67 hrs Surf.Area= 11,939 sf Storage= 38,567 cf

Plug-Flow detention time= 411.8 min calculated for 1.914 af (90% of inflow)
Center-of-Mass det. time= 359.0 min (1,215.3 - 856.3)

Volume	Invert	Avail.Storage	Storage Description
#1	466.00'	40,833 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

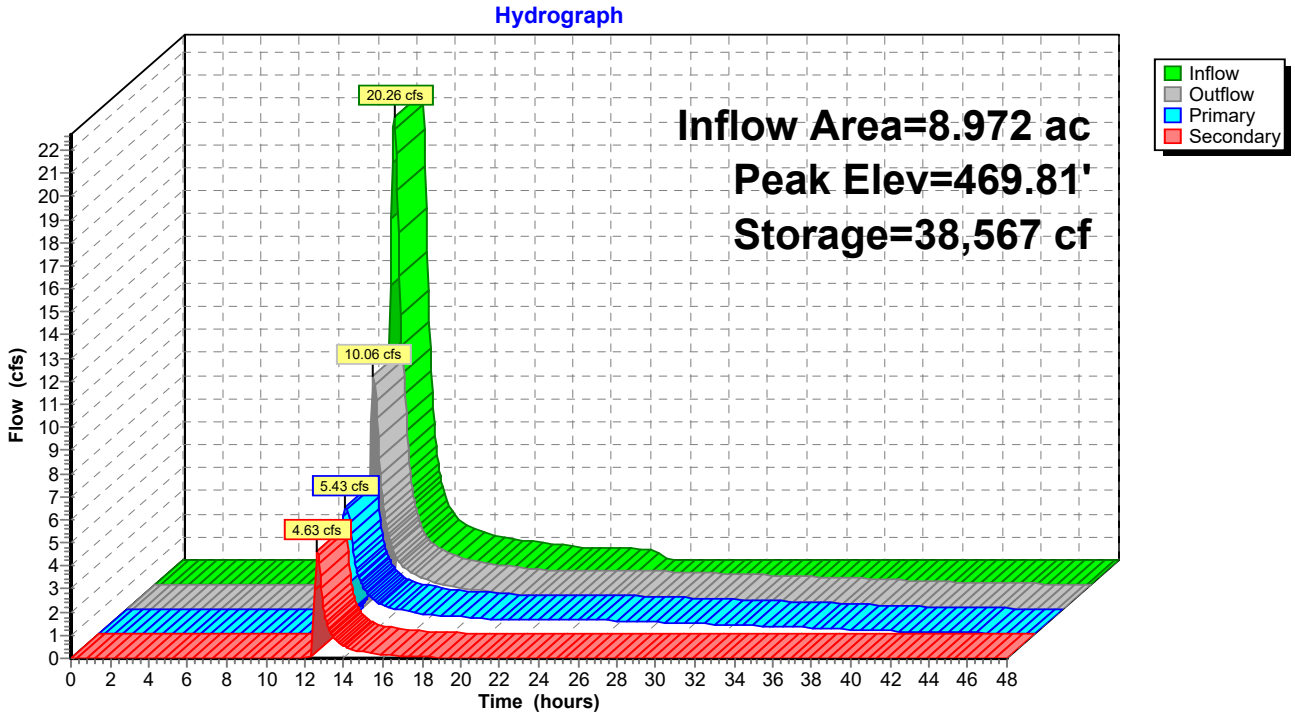
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
466.00	8,356	0	0
467.00	9,263	8,810	8,810
468.00	10,188	9,726	18,535
469.00	11,142	10,665	29,200
470.00	12,124	11,633	40,833

Device	Routing	Invert	Outlet Devices
#1	Primary	466.00'	**12.0" Round Culvert** L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 466.00' / 462.00' S= 0.1333 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	469.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	467.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	469.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=5.43 cfs @ 12.65 hrs HW=469.81' (Free Discharge)
└**1=Culvert** (Inlet Controls 5.43 cfs @ 6.92 fps)
  ├**2=Orifice/Grate** (Passes < 7.11 cfs potential flow)
  └**3=Orifice/Grate** (Passes < 0.68 cfs potential flow)

Secondary OutFlow Max=4.56 cfs @ 12.67 hrs HW=469.81' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 4.56 cfs @ 1.35 fps)

Pond 9.1P: 9.1P


Hydrograph
Inflow Area=8.972 ac
Peak Elev=469.81'
Storage=38,567 cf
20.26 cfs
10.06 cfs
5.43 cfs
4.63 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)

Summary for Pond 10.1P: 10.1P

Inflow Area = 2.860 ac, 0.00% Impervious, Inflow Depth = 2.67" for 100-year event
Inflow = 8.75 cfs @ 12.12 hrs, Volume= 0.638 af
Outflow = 3.35 cfs @ 12.38 hrs, Volume= 0.427 af, Atten= 62%, Lag= 16.0 min
Primary = 3.35 cfs @ 12.38 hrs, Volume= 0.427 af
Routed to Link SP10 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP10 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 569.76' @ 12.38 hrs Surf.Area= 7,406 sf Storage= 11,059 cf

Plug-Flow detention time= 187.2 min calculated for 0.426 af (67% of inflow)
Center-of-Mass det. time= 77.3 min (924.1 - 846.8)

Volume	Invert	Avail.Storage	Storage Description
#1	568.00'	30,342 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

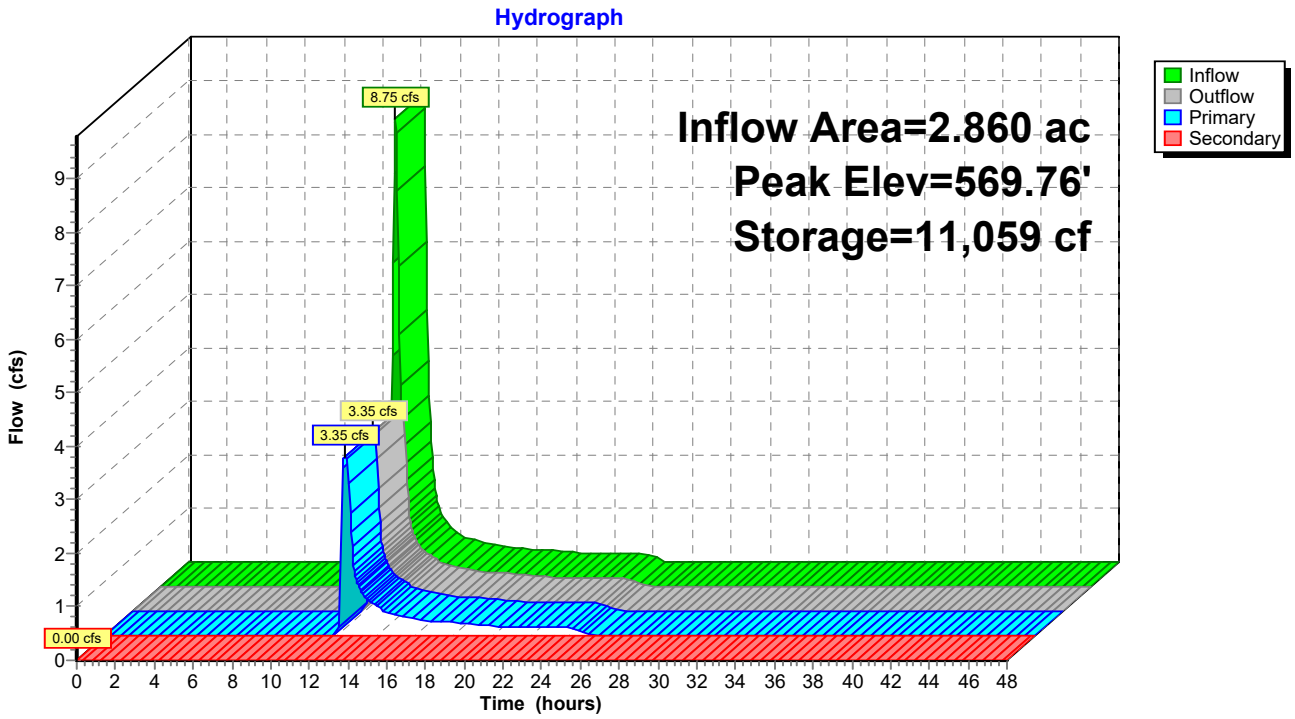
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
568.00	5,183	0	0
569.00	6,419	5,801	5,801
570.00	7,717	7,068	12,869
571.00	9,076	8,397	21,266
572.00	9,077	9,077	30,342

Device	Routing	Invert	Outlet Devices
#1	Primary	568.00'	**12.0" Round Culvert** L= 80.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 568.00' / 567.50' S= 0.0063 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	569.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	571.00'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=3.35 cfs @ 12.38 hrs HW=569.76' (Free Discharge)
└**1=Culvert** (Inlet Controls 3.35 cfs @ 4.27 fps)
└**2=Orifice/Grate** (Passes 3.35 cfs of 5.42 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=568.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10.1P: 10.1P



Summary for Pond 12P: 12P

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 4.859 ac, 53.67% Impervious, Inflow Depth = 5.36" for 100-year event
Inflow = 38.33 cfs @ 11.96 hrs, Volume= 2.172 af
Outflow = 1.61 cfs @ 13.21 hrs, Volume= 2.173 af, Atten= 96%, Lag= 74.9 min
Primary = 1.61 cfs @ 13.21 hrs, Volume= 2.173 af
Routed to Reach 13.1R :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 508.38' @ 13.21 hrs Surf.Area= 46,287 sf Storage= 44,248 cf

Plug-Flow detention time= 232.1 min calculated for 2.171 af (100% of inflow)
Center-of-Mass det. time= 232.1 min (981.2 - 749.1)

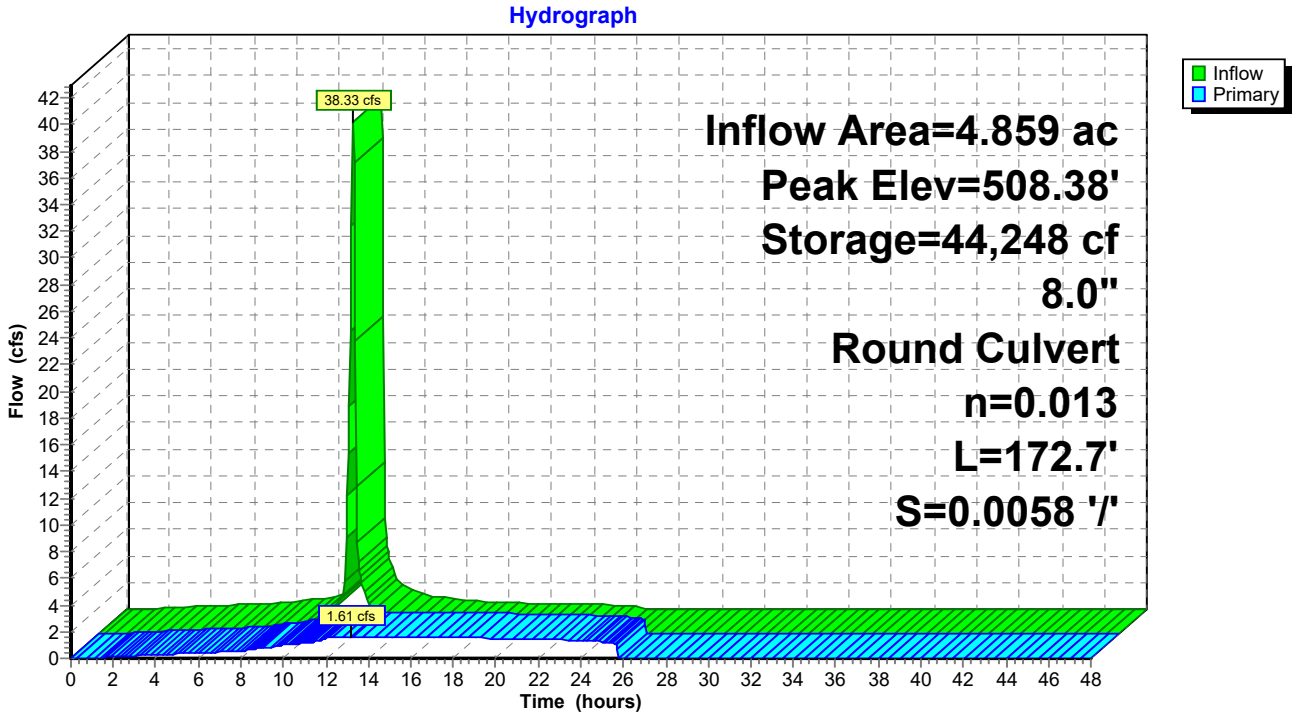
Volume	Invert	Avail.Storage	Storage Description
#1	506.00'	349,842 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
506.00	138	45.5	0	0	138
508.00	39,705	811.5	28,123	28,123	52,385
510.00	80,589	1,415.9	117,907	146,030	159,538
512.00	124,830	2,053.3	203,812	349,842	335,540

Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	**8.0" Round Culvert**
			L= 172.7' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 505.00' / 504.00' S= 0.0058 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.61 cfs @ 13.21 hrs HW=508.38' (Free Discharge)
↑**1=Culvert** (Barrel Controls 1.61 cfs @ 4.62 fps)

Pond 12P: 12P


Hydrograph
Inflow
Primary
38.33 cfs
1.61 cfs
Inflow Area=4.859 ac
Peak Elev=508.38'
Storage=44,248 cf
8.0"
Round Culvert
n=0.013
L=172.7'
S=0.0058 '/'
Flow (cfs)
Time (hours)

Summary for Pond 23.1P: 23.1P

Inflow Area = 3.682 ac, 0.00% Impervious, Inflow Depth = 2.58" for 100-year event
Inflow = 16.42 cfs @ 11.97 hrs, Volume= 0.793 af
Outflow = 13.34 cfs @ 12.03 hrs, Volume= 0.705 af, Atten= 19%, Lag= 3.3 min
Primary = 13.34 cfs @ 12.03 hrs, Volume= 0.705 af
Routed to Link SP23 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP23 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 494.45' @ 12.03 hrs Surf.Area= 4,898 sf Storage= 10,288 cf

Plug-Flow detention time= 134.7 min calculated for 0.705 af (89% of inflow)
Center-of-Mass det. time= 80.8 min (918.2 - 837.4)

Volume	Invert	Avail.Storage	Storage Description
#1	492.00'	24,768 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

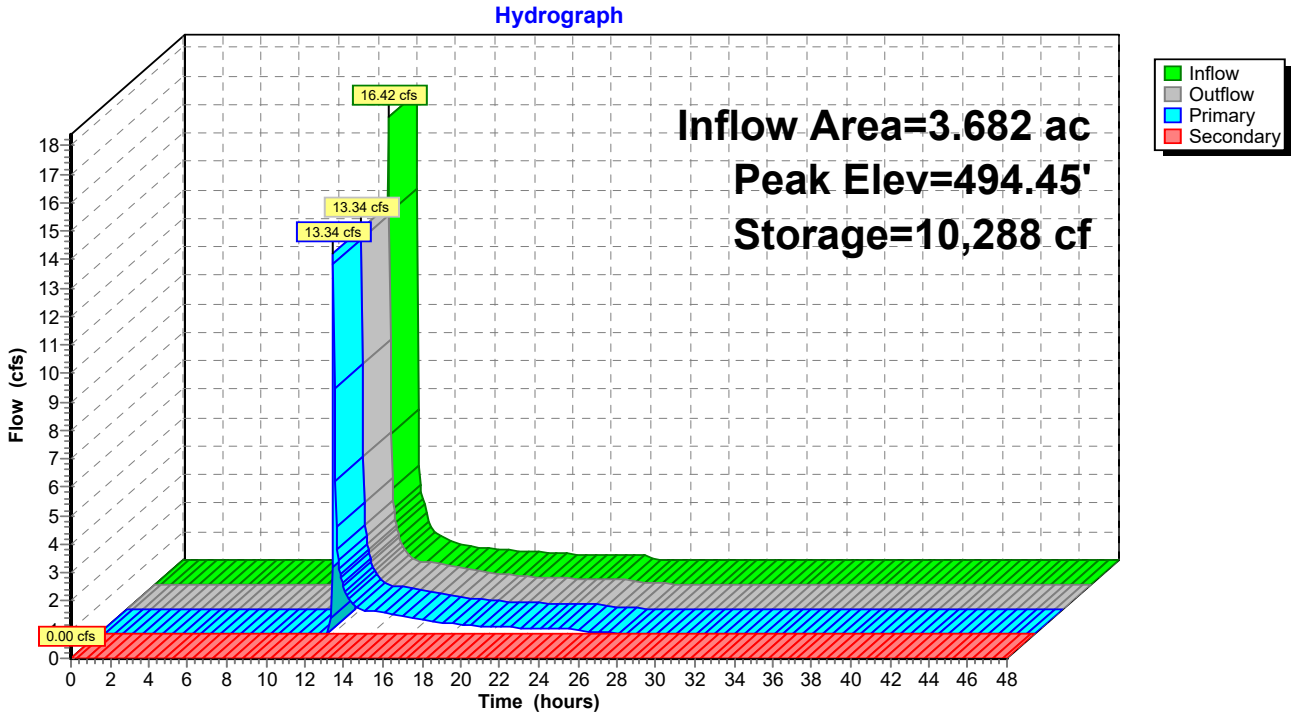
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
492.00	3,530	0	0
493.00	4,069	3,800	3,800
494.00	4,634	4,352	8,151
495.00	5,223	4,929	13,080
496.00	5,838	5,531	18,610
497.00	6,477	6,158	24,768

Device	Routing	Invert	Outlet Devices
#1	Primary	492.00'	**24.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 492.00' / 489.00' S= 0.1071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	493.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	494.00'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	496.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=12.75 cfs @ 12.03 hrs HW=494.43' (Free Discharge)
└**1=Culvert** (Passes 12.75 cfs of 14.30 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 1.03 cfs @ 5.24 fps)
└**3=Orifice/Grate** (Weir Controls 11.72 cfs @ 2.15 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=492.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 23.1P: 23.1P



Summary for Pond 44.1P: 44.1P

Inflow Area = 6.425 ac, 0.00% Impervious, Inflow Depth = 3.33" for 100-year event
Inflow = 36.50 cfs @ 11.97 hrs, Volume= 1.784 af
Outflow = 0.98 cfs @ 14.90 hrs, Volume= 1.083 af, Atten= 97%, Lag= 176.1 min
Primary = 0.78 cfs @ 14.90 hrs, Volume= 1.035 af
Routed to Link SP43 :
Secondary = 0.20 cfs @ 14.90 hrs, Volume= 0.048 af
Routed to Link SP43 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 428.54' @ 14.90 hrs Surf.Area= 23,441 sf Storage= 54,864 cf

Plug-Flow detention time= 811.7 min calculated for 1.083 af (61% of inflow)
Center-of-Mass det. time= 701.1 min (1,519.2 - 818.1)

Volume	Invert	Avail.Storage	Storage Description
#1	426.00'	90,704 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

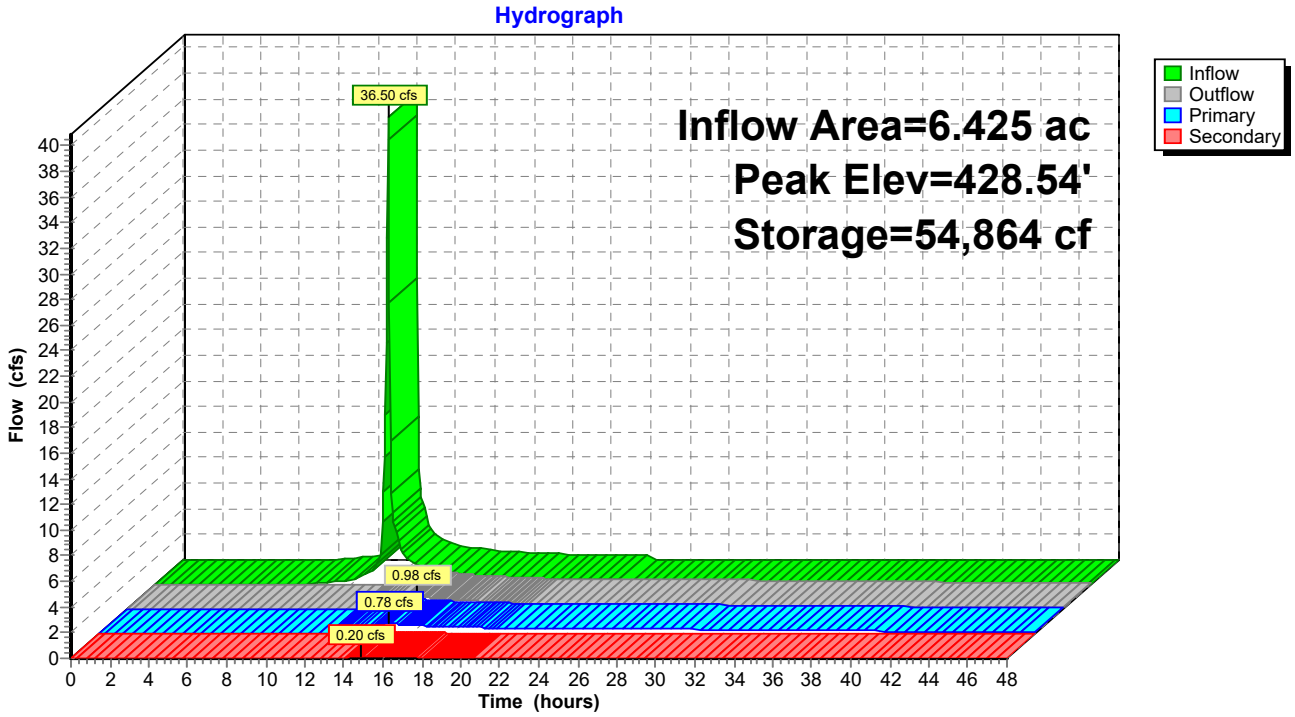
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
426.00	19,818	0	0
427.00	21,225	20,522	20,522
428.00	22,657	21,941	42,463
429.00	24,114	23,386	65,848
430.00	25,597	24,856	90,704

Device	Routing	Invert	Outlet Devices
#1	Primary	426.00'	**12.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 426.00' / 425.50' S= 0.0227 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	427.25'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	428.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	428.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.75 cfs @ 14.90 hrs HW=428.54' (Free Discharge)
└**1=Culvert** (Passes 0.75 cfs of 4.26 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.44 cfs @ 5.10 fps)
  └**3=Orifice/Grate** (Weir Controls 0.30 cfs @ 0.64 fps)

Secondary OutFlow Max=0.18 cfs @ 14.90 hrs HW=428.54' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.18 cfs @ 0.46 fps)

Pond 44.1P: 44.1P



Summary for Pond 46.1P: 46.1P

Inflow Area = 5.472 ac, 0.00% Impervious, Inflow Depth = 0.69" for 100-year event
Inflow = 1.83 cfs @ 12.36 hrs, Volume= 0.316 af
Outflow = 0.17 cfs @ 19.50 hrs, Volume= 0.171 af, Atten= 91%, Lag= 428.4 min
Primary = 0.17 cfs @ 19.50 hrs, Volume= 0.171 af
Routed to Link SP46 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP46 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 355.16' @ 19.50 hrs Surf.Area= 8,605 sf Storage= 8,765 cf

Plug-Flow detention time= 573.2 min calculated for 0.171 af (54% of inflow)
Center-of-Mass det. time= 409.9 min (1,356.6 - 946.7)

Volume	Invert	Avail.Storage	Storage Description
#1	354.00'	27,705 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

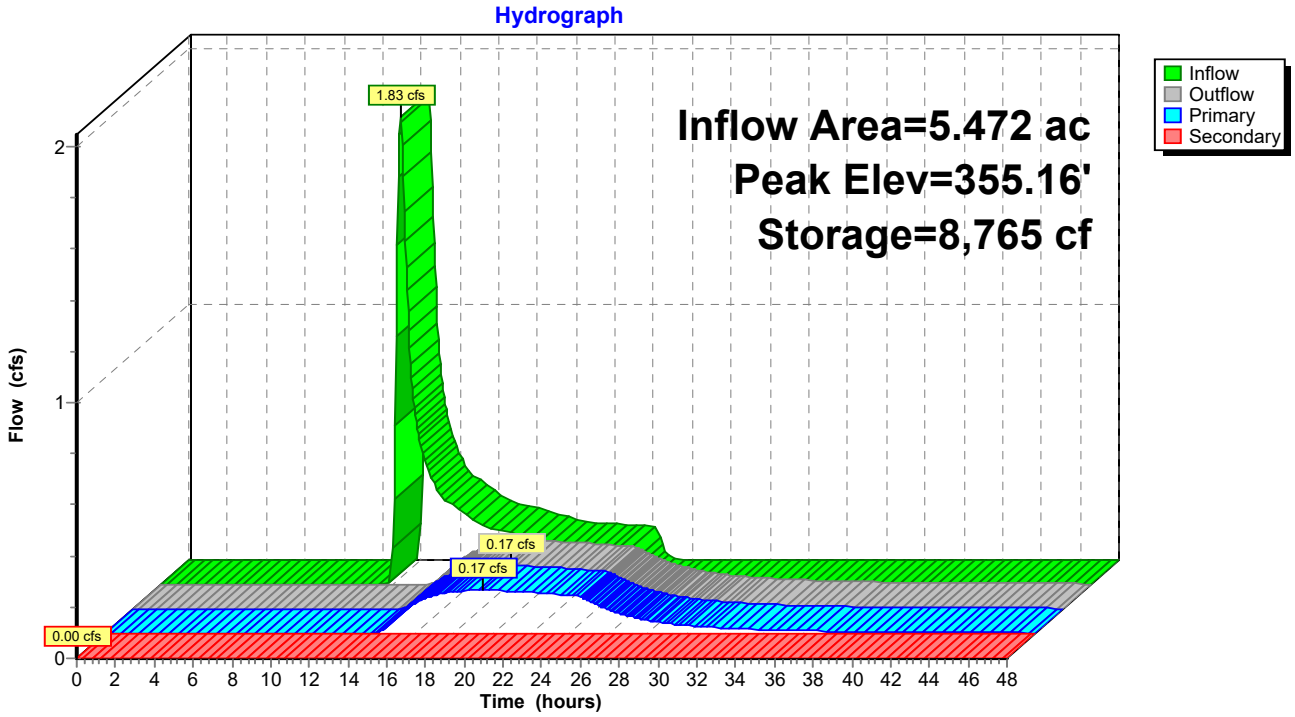
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
354.00	6,512	0	0
355.00	8,313	7,413	7,413
356.00	10,140	9,227	16,639
357.00	11,992	11,066	27,705

Device	Routing	Invert	Outlet Devices
#1	Primary	354.00'	**24.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 354.00' / 353.75' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	354.83'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	355.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	355.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.17 cfs @ 19.50 hrs HW=355.16' (Free Discharge)
└**1=Culvert** (Passes 0.17 cfs of 5.23 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.17 cfs @ 1.96 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=354.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 46.1P: 46.1P

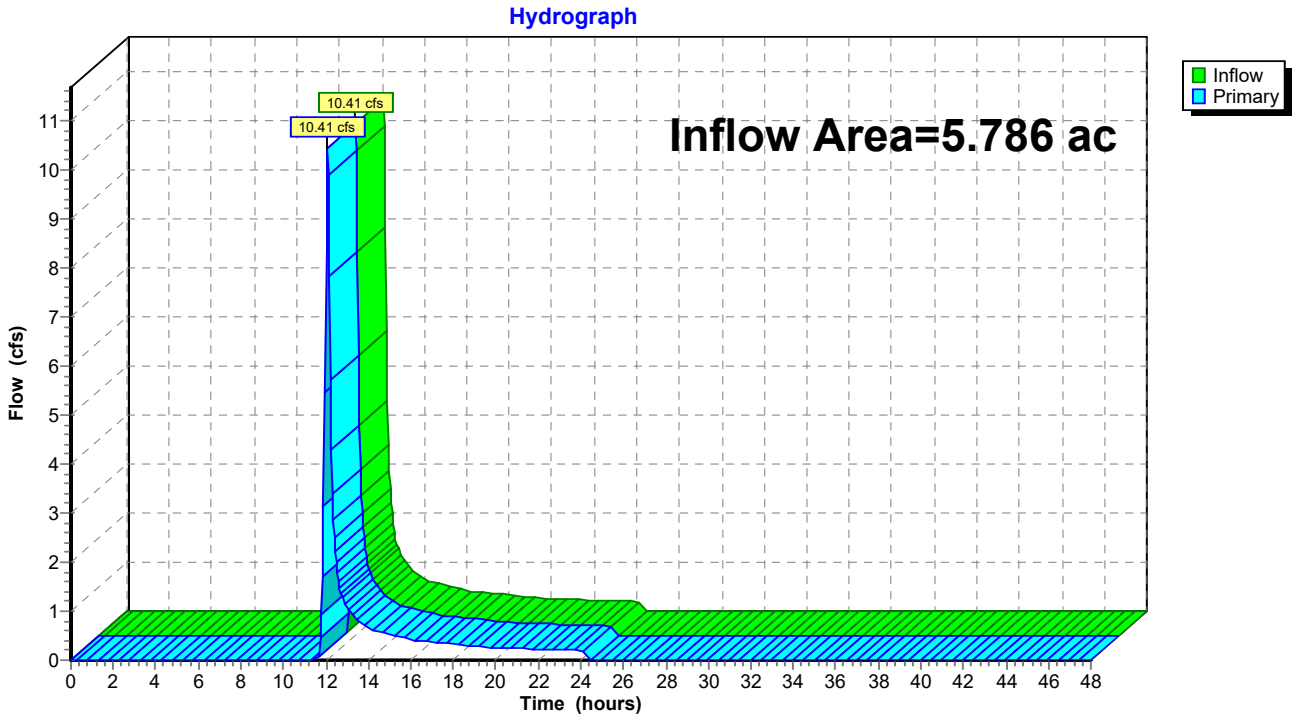


Summary for Link SP1:

Inflow Area = 5.786 ac, 0.00% Impervious, Inflow Depth = 1.43" for 100-year event
Inflow = 10.41 cfs @ 12.07 hrs, Volume= 0.691 af
Primary = 10.41 cfs @ 12.07 hrs, Volume= 0.691 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP1:

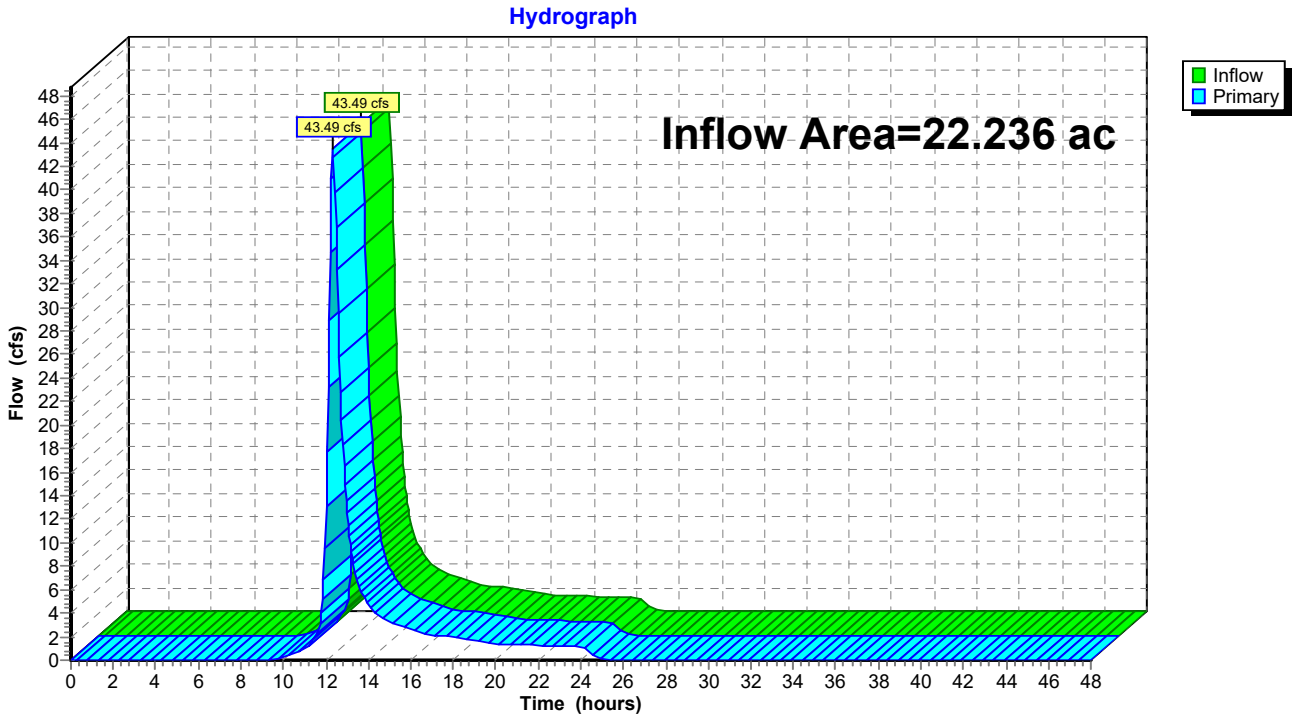


Summary for Link SP10:

Inflow Area = 22.236 ac, 4.90% Impervious, Inflow Depth = 2.64" for 100-year event
Inflow = 43.49 cfs @ 12.33 hrs, Volume= 4.893 af
Primary = 43.49 cfs @ 12.33 hrs, Volume= 4.893 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP10:

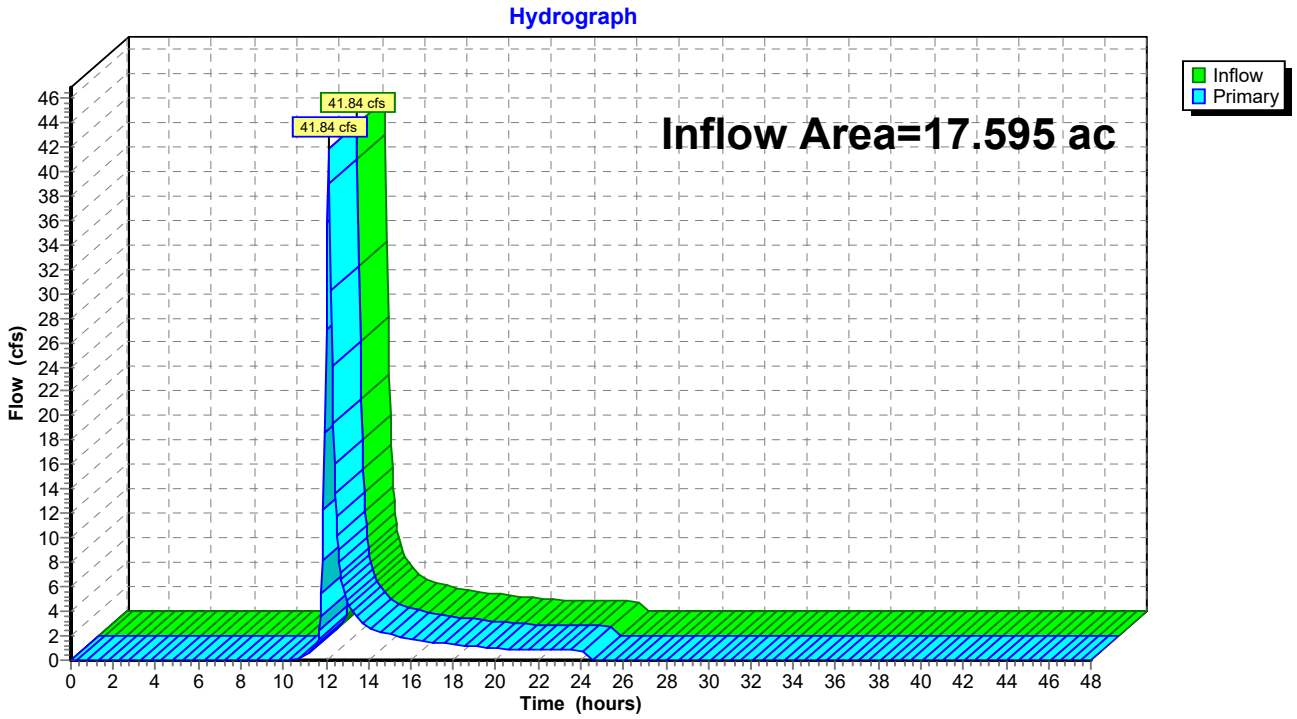


Summary for Link SP11:

Inflow Area = 17.595 ac, 2.63% Impervious, Inflow Depth = 2.15" for 100-year event
Inflow = 41.84 cfs @ 12.13 hrs, Volume= 3.152 af
Primary = 41.84 cfs @ 12.13 hrs, Volume= 3.152 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP11:

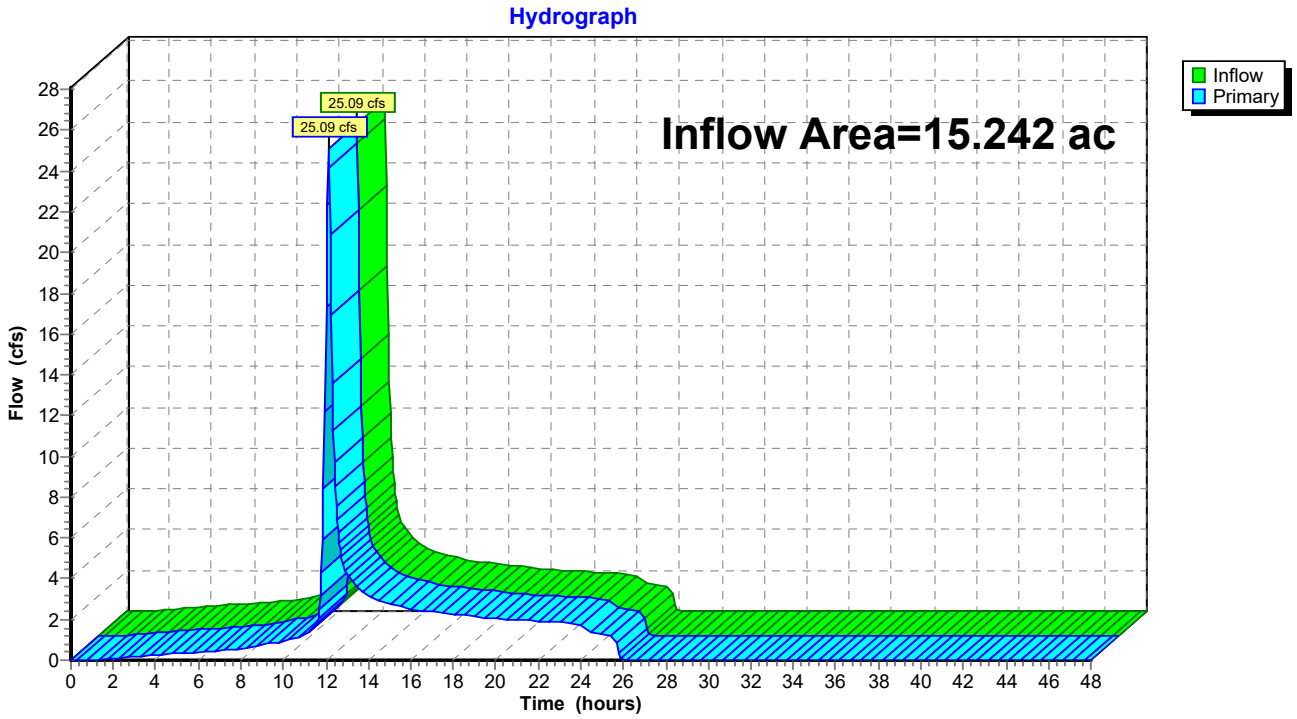


Summary for Link SP13:

Inflow Area = 15.242 ac, 17.24% Impervious, Inflow Depth = 3.06" for 100-year event
Inflow = 25.09 cfs @ 12.11 hrs, Volume= 3.889 af
Primary = 25.09 cfs @ 12.11 hrs, Volume= 3.889 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP13:

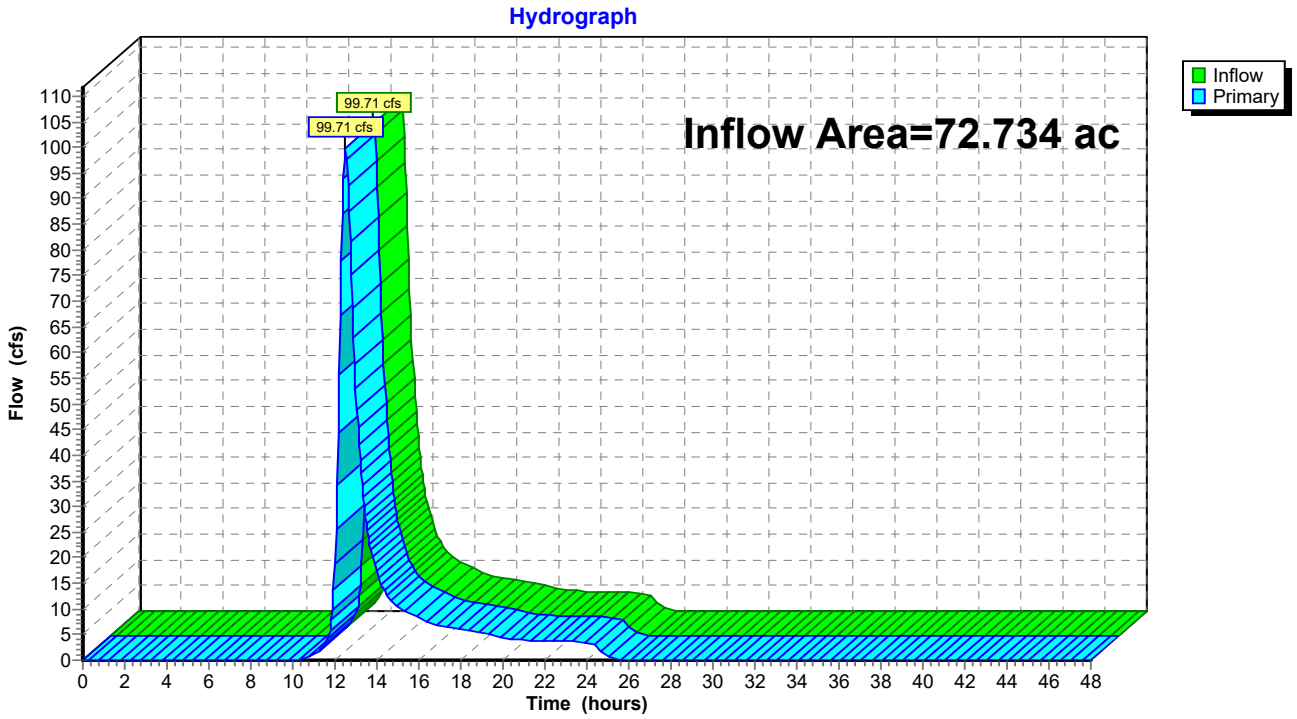


Summary for Link SP14:

Inflow Area = 72.734 ac, 0.42% Impervious, Inflow Depth = 2.32" for 100-year event
Inflow = 99.71 cfs @ 12.51 hrs, Volume= 14.067 af
Primary = 99.71 cfs @ 12.51 hrs, Volume= 14.067 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP14:

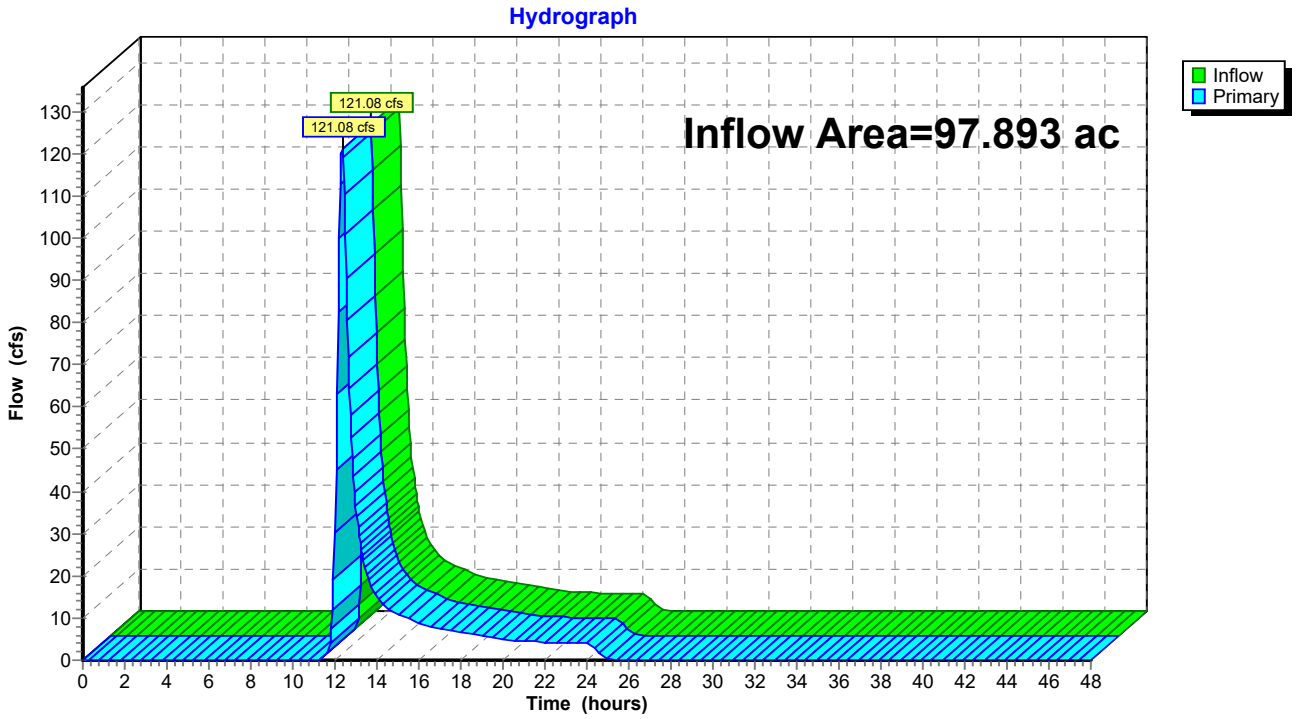


Summary for Link SP17:

Inflow Area = 97.893 ac, 1.18% Impervious, Inflow Depth = 1.74" for 100-year event
Inflow = 121.08 cfs @ 12.34 hrs, Volume= 14.202 af
Primary = 121.08 cfs @ 12.34 hrs, Volume= 14.202 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP17:

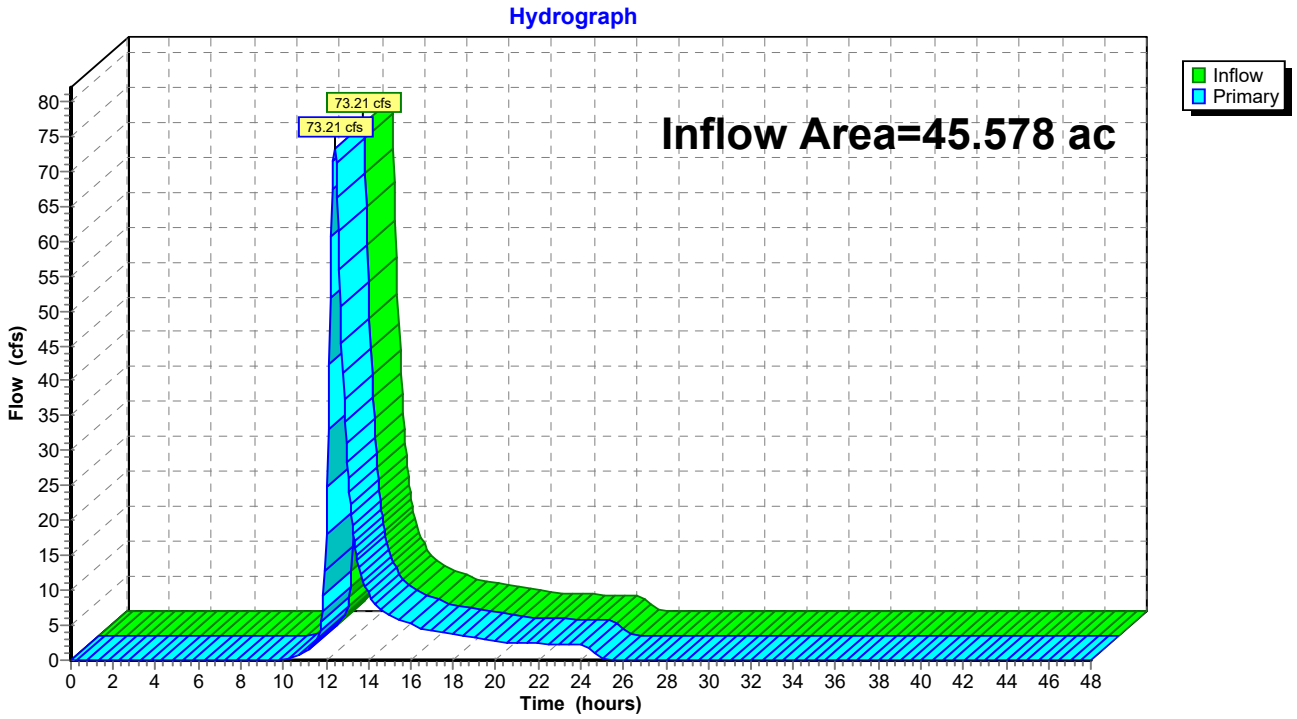


Summary for Link SP18:

Inflow Area = 45.578 ac, 0.74% Impervious, Inflow Depth = 2.41" for 100-year event
Inflow = 73.21 cfs @ 12.41 hrs, Volume= 9.145 af
Primary = 73.21 cfs @ 12.41 hrs, Volume= 9.145 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP18:

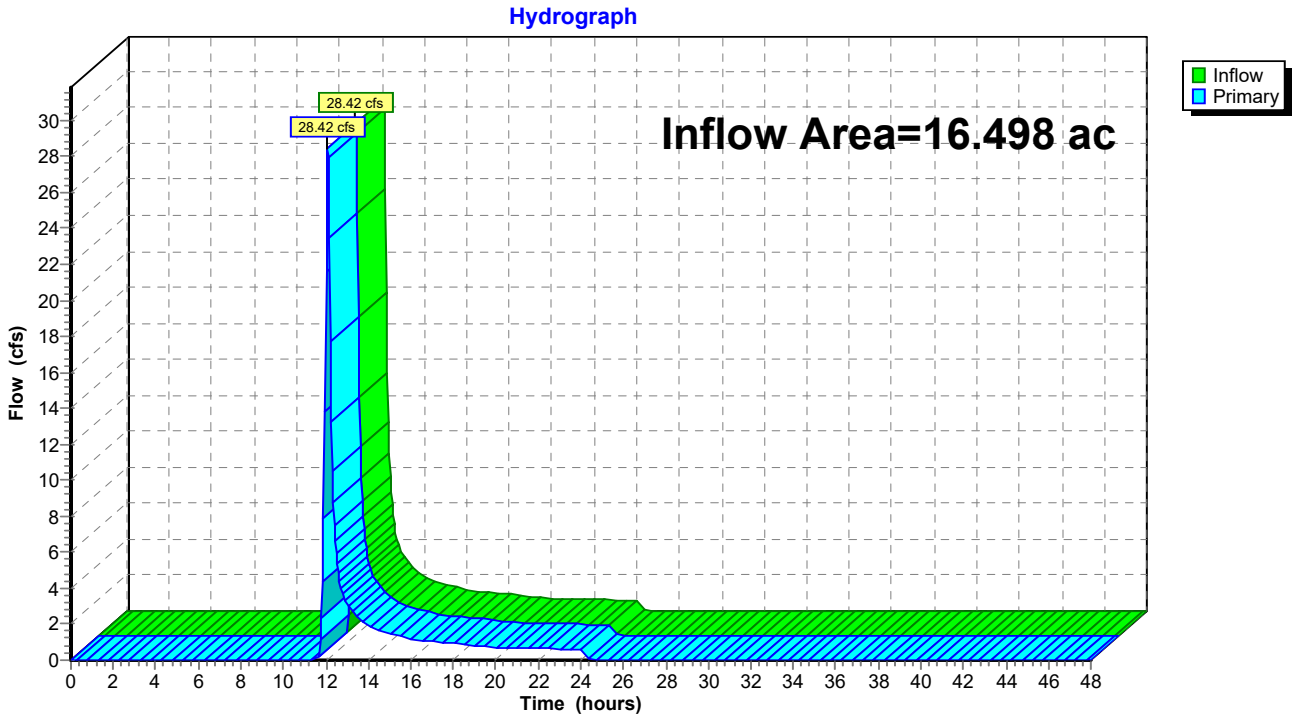


Summary for Link SP2:

Inflow Area = 16.498 ac, 0.00% Impervious, Inflow Depth = 1.43" for 100-year event
Inflow = 28.42 cfs @ 12.08 hrs, Volume= 1.971 af
Primary = 28.42 cfs @ 12.08 hrs, Volume= 1.971 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP2:

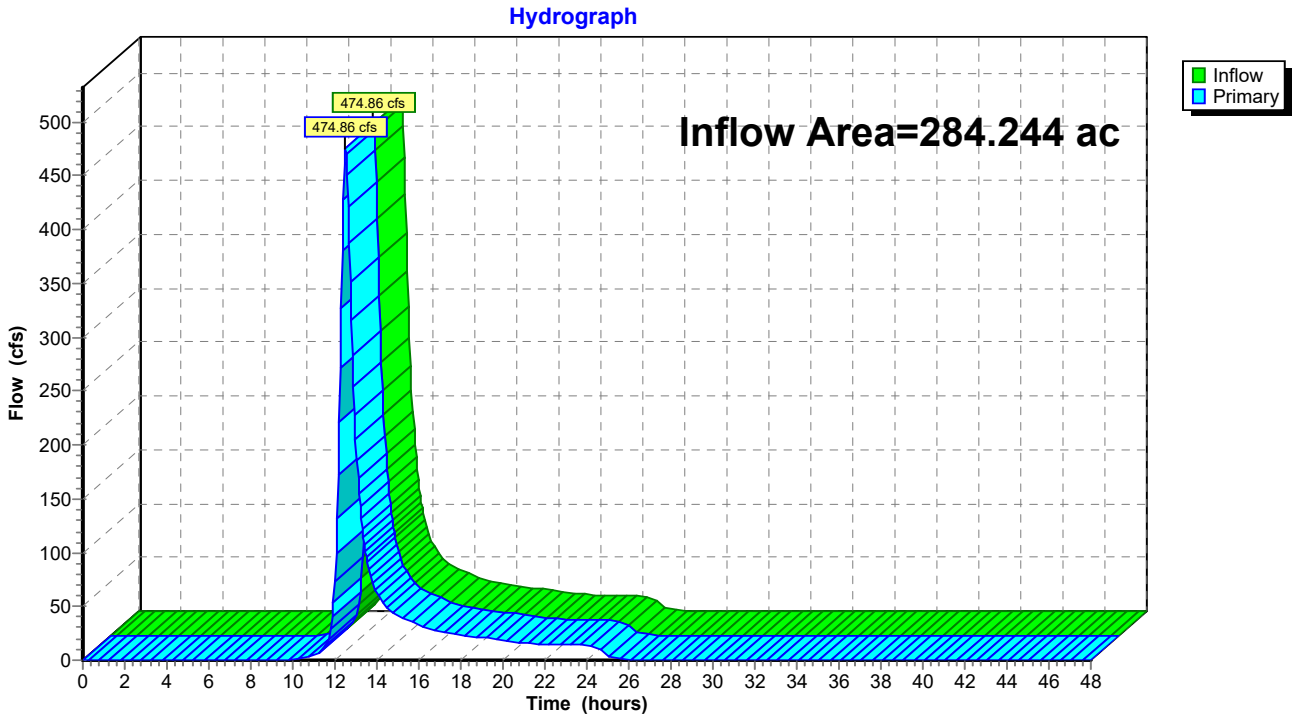


Summary for Link SP22:

Inflow Area = 284.244 ac, 1.82% Impervious, Inflow Depth = 2.44" for 100-year event
Inflow = 474.86 cfs @ 12.51 hrs, Volume= 57.831 af
Primary = 474.86 cfs @ 12.51 hrs, Volume= 57.831 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP22:

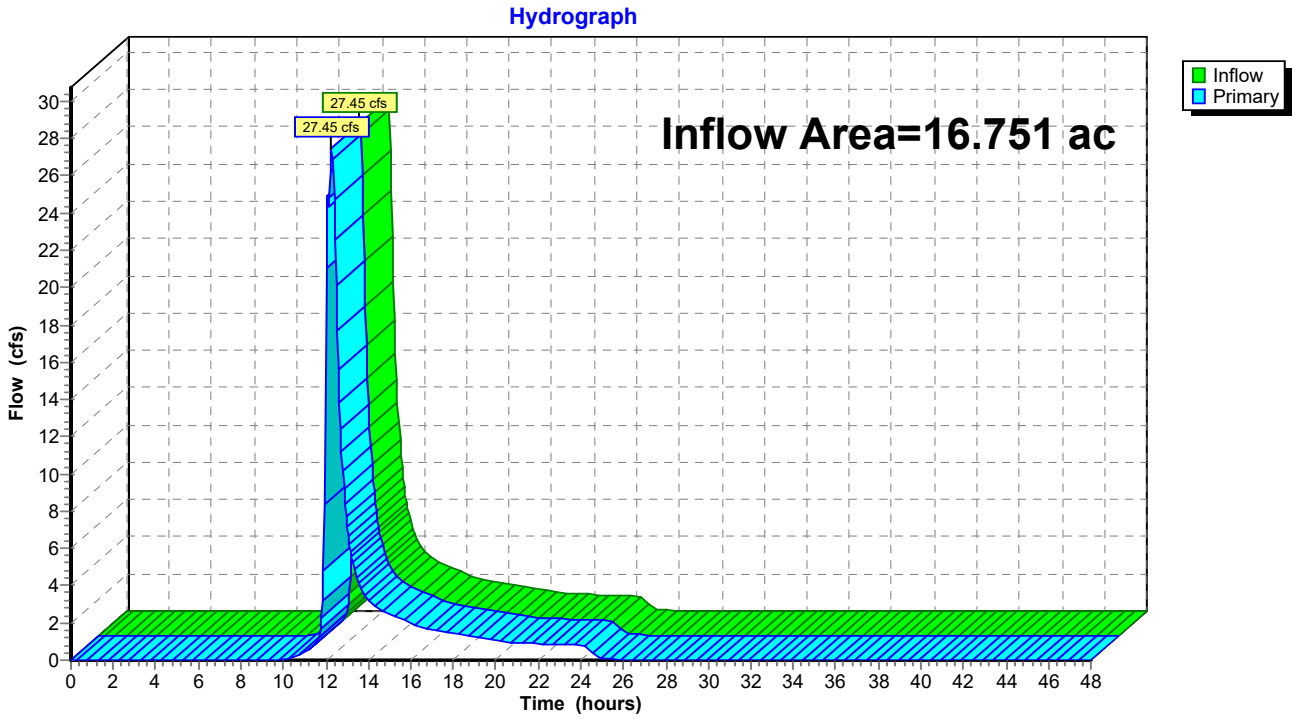


Summary for Link SP23:

Inflow Area = 16.751 ac, 2.31% Impervious, Inflow Depth = 2.38" for 100-year event
Inflow = 27.45 cfs @ 12.28 hrs, Volume= 3.328 af
Primary = 27.45 cfs @ 12.28 hrs, Volume= 3.328 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP23:

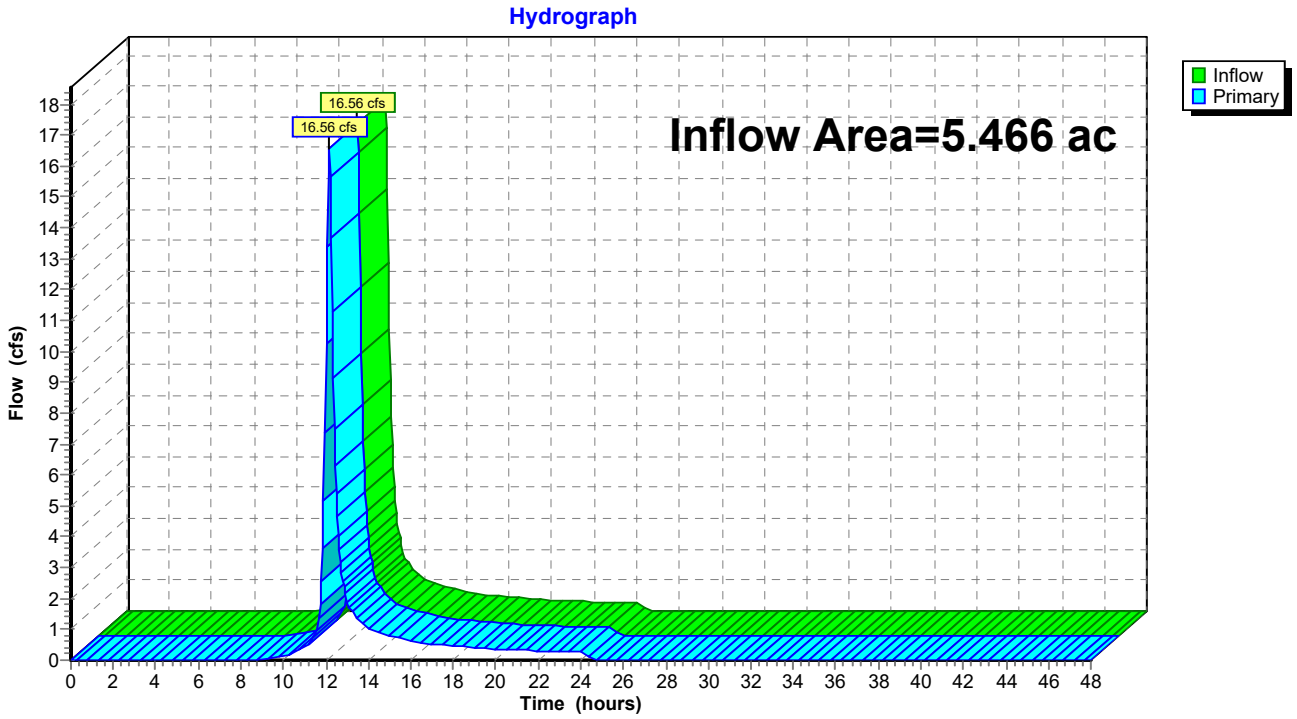


Summary for Link SP24:

Inflow Area = 5.466 ac, 7.70% Impervious, Inflow Depth = 2.86" for 100-year event
Inflow = 16.56 cfs @ 12.15 hrs, Volume= 1.302 af
Primary = 16.56 cfs @ 12.15 hrs, Volume= 1.302 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP24:

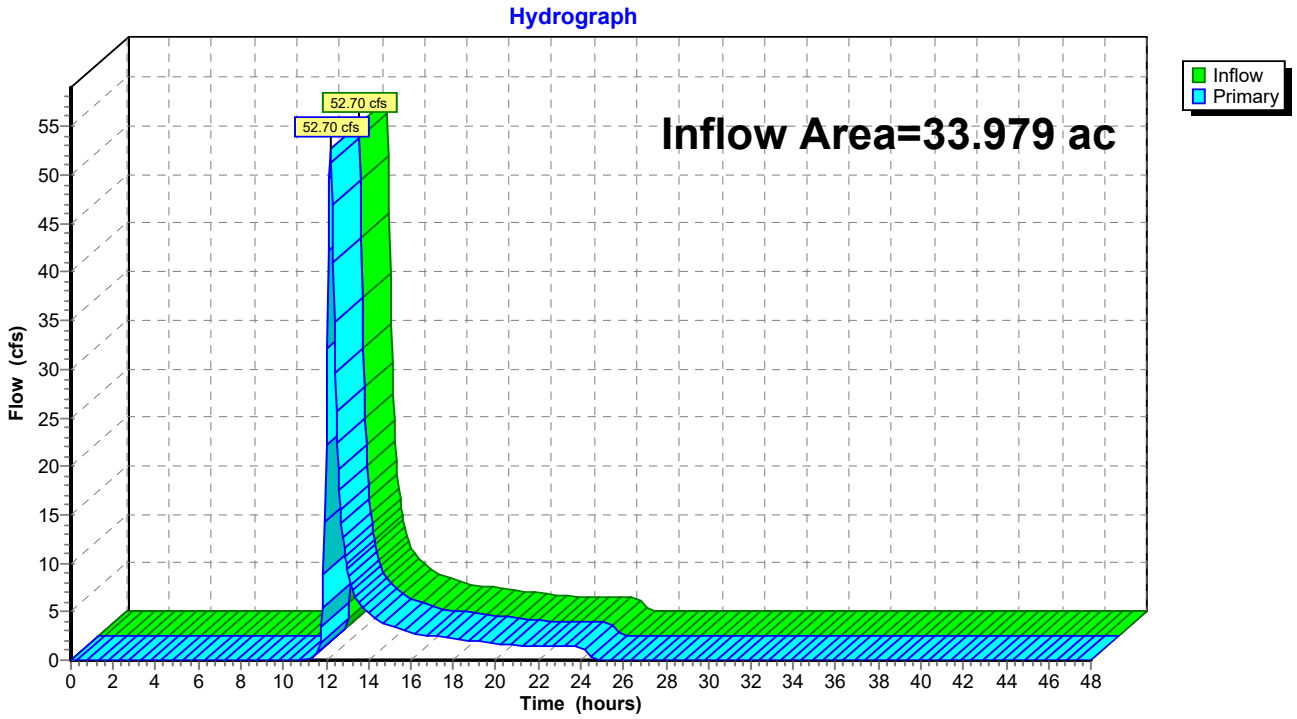


Summary for Link SP3:

Inflow Area = 33.979 ac, 0.00% Impervious, Inflow Depth = 1.74" for 100-year event
Inflow = 52.70 cfs @ 12.21 hrs, Volume= 4.930 af
Primary = 52.70 cfs @ 12.21 hrs, Volume= 4.930 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP3:

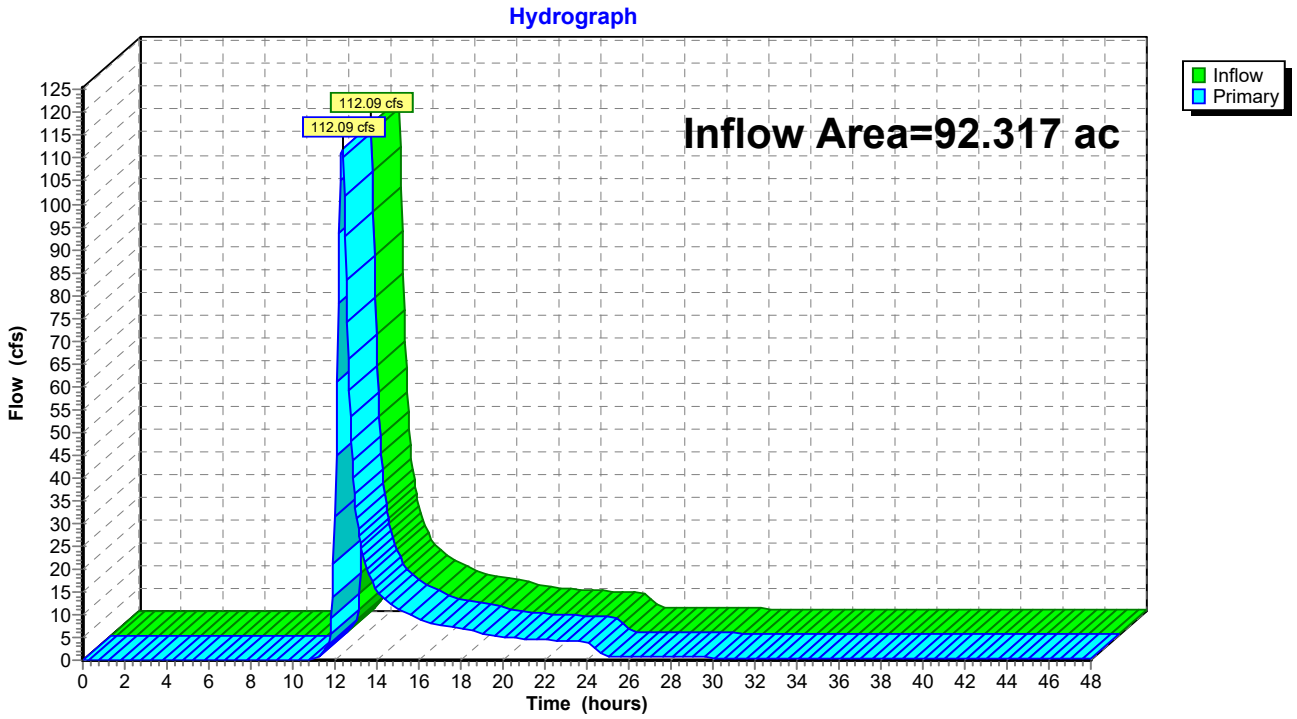


Summary for Link SP4:

Inflow Area = 92.317 ac, 0.28% Impervious, Inflow Depth > 1.95" for 100-year event
Inflow = 112.09 cfs @ 12.33 hrs, Volume= 14.988 af
Primary = 112.09 cfs @ 12.33 hrs, Volume= 14.988 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP4:

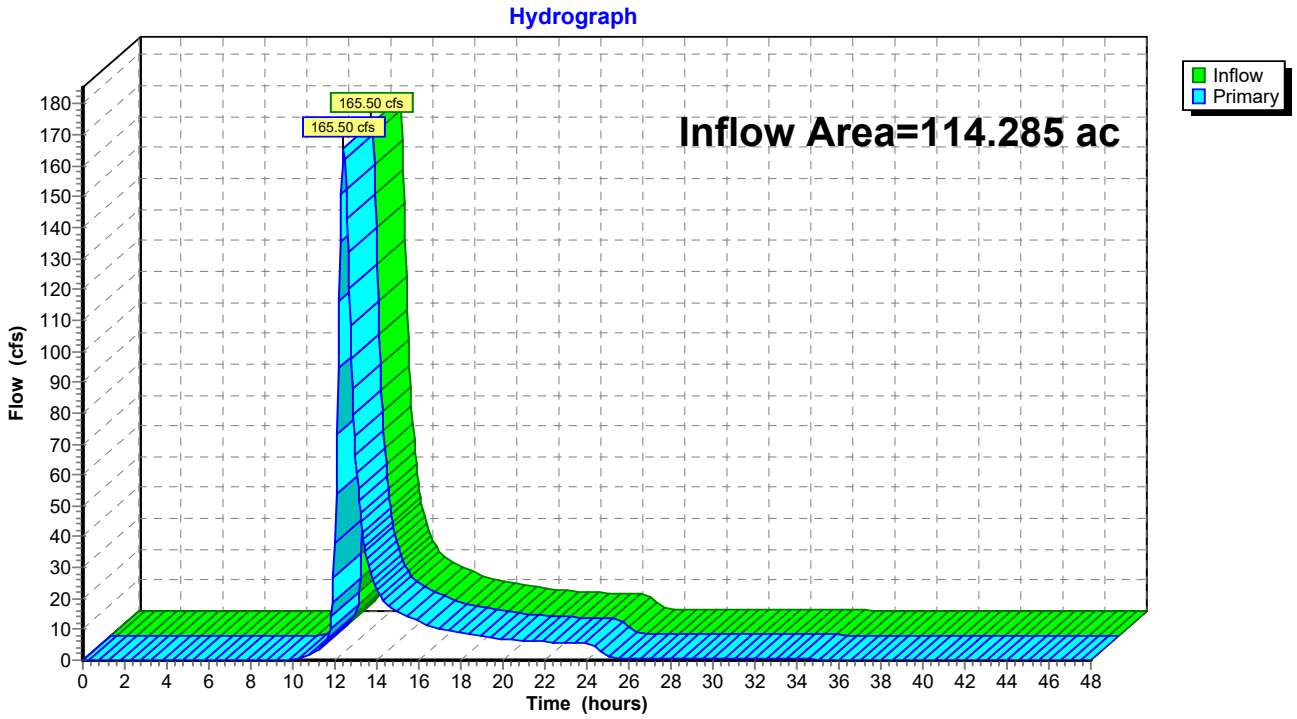


Summary for Link SP43:

Inflow Area = 114.285 ac, 0.15% Impervious, Inflow Depth > 2.31" for 100-year event
Inflow = 165.50 cfs @ 12.42 hrs, Volume= 21.963 af
Primary = 165.50 cfs @ 12.42 hrs, Volume= 21.963 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP43:

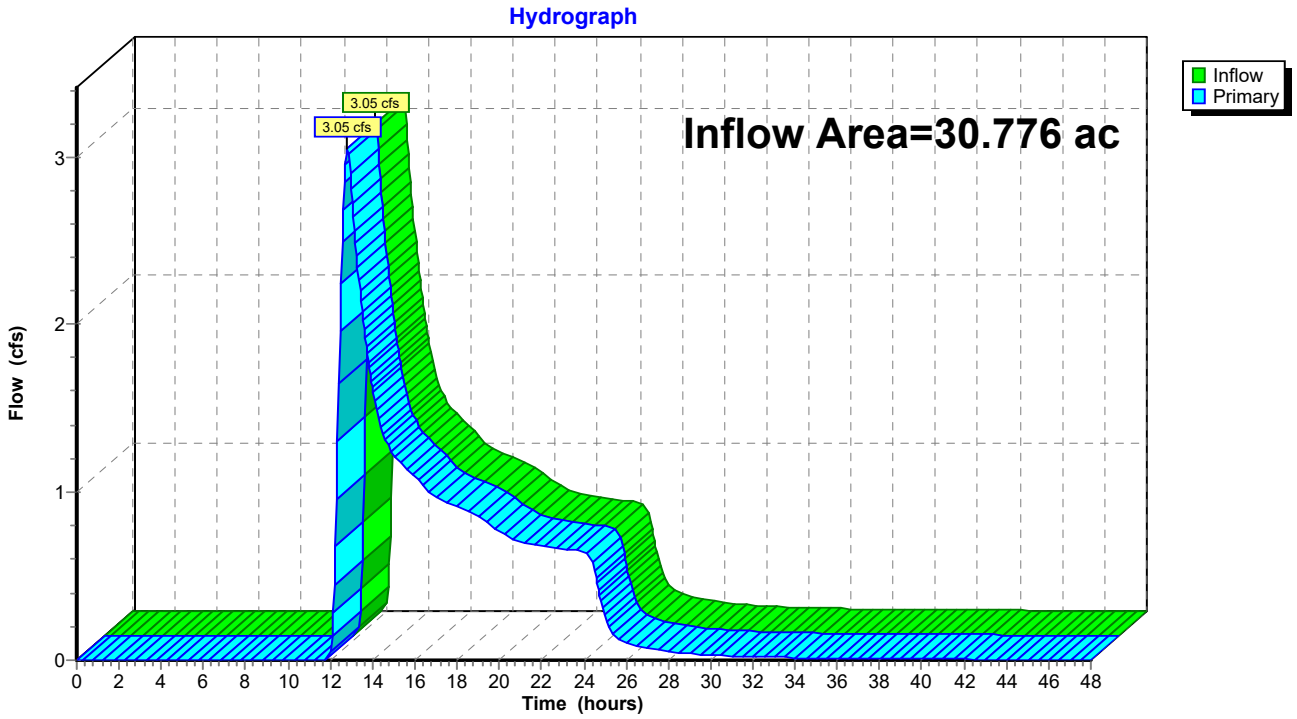


Summary for Link SP46:

Inflow Area = 30.776 ac, 0.00% Impervious, Inflow Depth > 0.45" for 100-year event
Inflow = 3.05 cfs @ 12.82 hrs, Volume= 1.159 af
Primary = 3.05 cfs @ 12.82 hrs, Volume= 1.159 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP46:

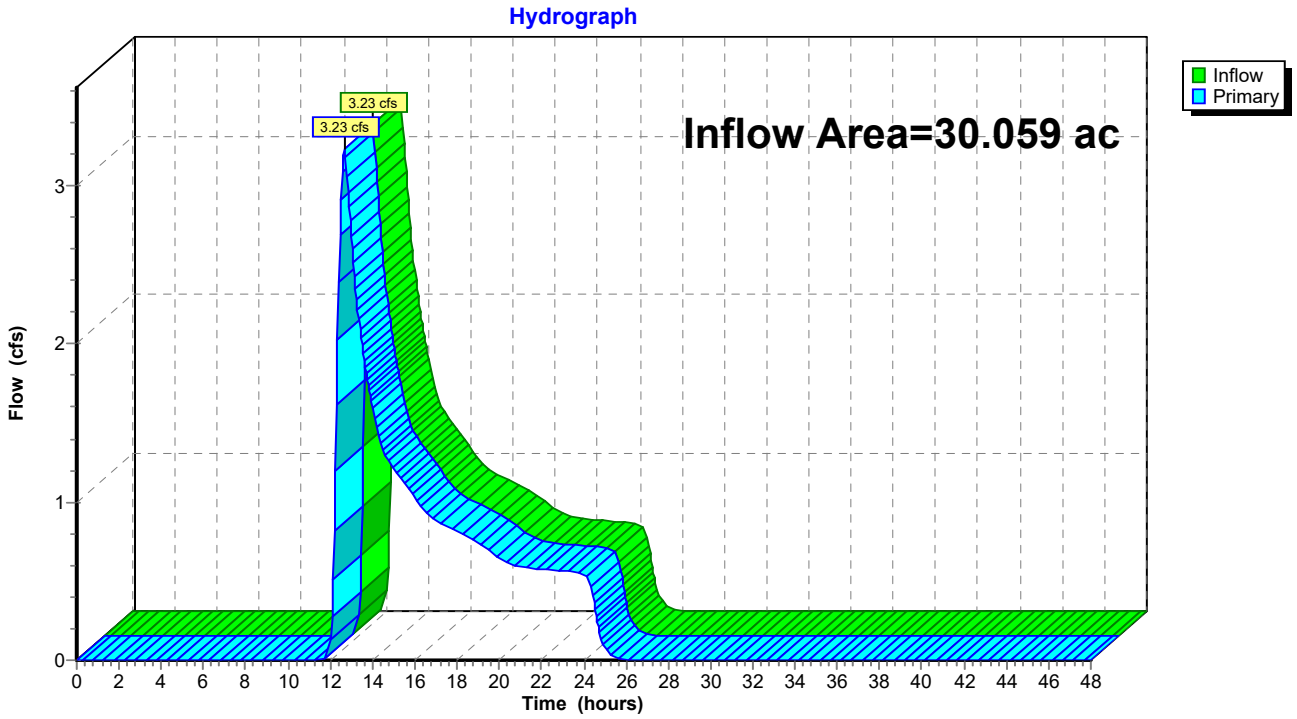


Summary for Link SP47:

Inflow Area = 30.059 ac, 1.25% Impervious, Inflow Depth = 0.42" for 100-year event
Inflow = 3.23 cfs @ 12.66 hrs, Volume= 1.046 af
Primary = 3.23 cfs @ 12.66 hrs, Volume= 1.046 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP47:

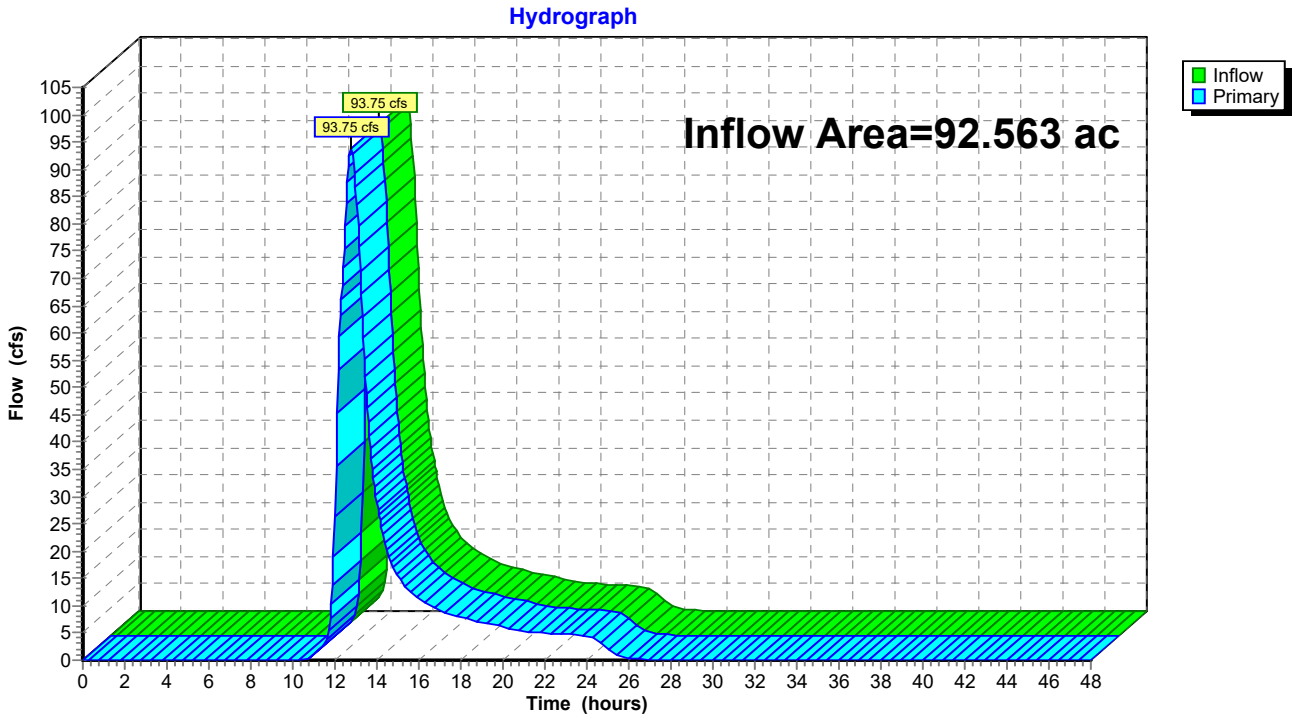


Summary for Link SP5:

Inflow Area = 92.563 ac, 0.00% Impervious, Inflow Depth = 2.40" for 100-year event
Inflow = 93.75 cfs @ 12.78 hrs, Volume= 18.521 af
Primary = 93.75 cfs @ 12.78 hrs, Volume= 18.521 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP5:

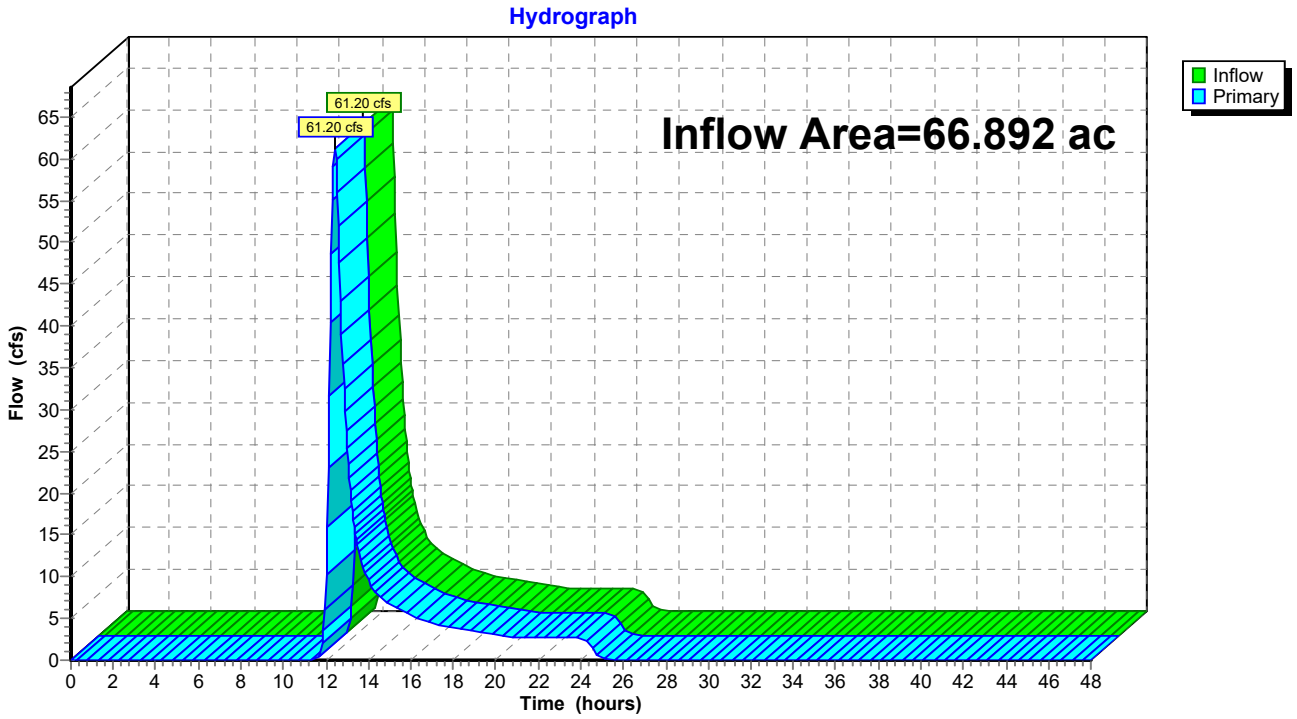


Summary for Link SP7:

Inflow Area = 66.892 ac, 0.00% Impervious, Inflow Depth = 1.48" for 100-year event
Inflow = 61.20 cfs @ 12.42 hrs, Volume= 8.268 af
Primary = 61.20 cfs @ 12.42 hrs, Volume= 8.268 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP7:

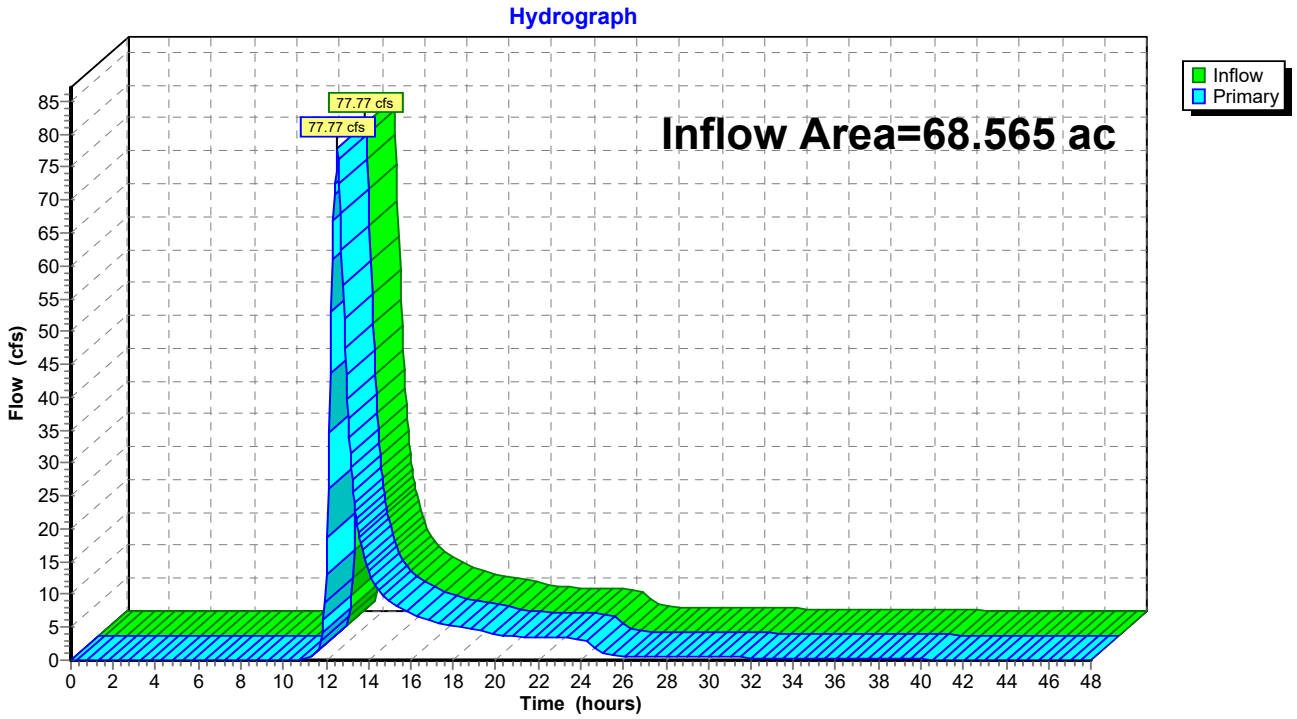


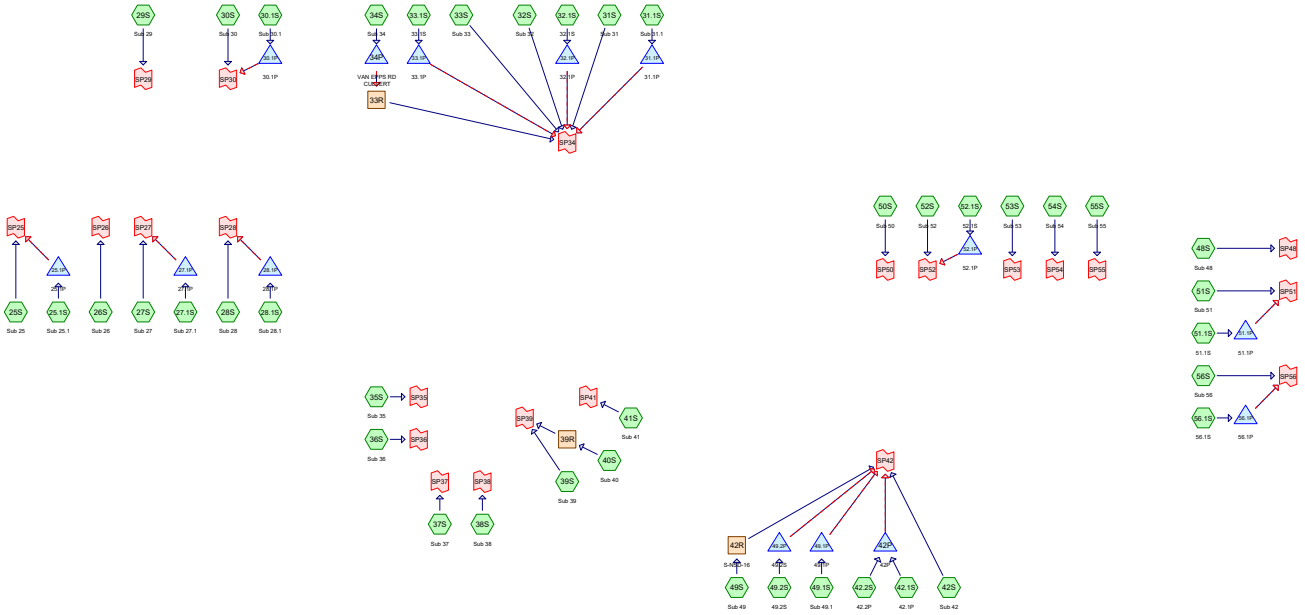
Summary for Link SP9:

Inflow Area = 68.565 ac, 1.11% Impervious, Inflow Depth > 2.06" for 100-year event
Inflow = 77.77 cfs @ 12.56 hrs, Volume= 11.762 af
Primary = 77.77 cfs @ 12.56 hrs, Volume= 11.762 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP9:





Subcat Reach Pond Link

Routing Diagram for Mill Pt Post 2

Prepared by TRC Companies, Printed 1/15/2024

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type II 24-hr		Default	24.00	1	2.17	2
2	10-year	Type II 24-hr		Default	24.00	1	3.50	2
3	100-year	Type II 24-hr		Default	24.00	1	5.72	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
18.860	61	>75% Grass cover, Good, HSG B (26S, 27S, 28S, 30S, 33S, 34S, 35S, 40S, 48S, 49.1S, 49.2S, 49S, 51S, 54S)
13.624	74	>75% Grass cover, Good, HSG C (25S, 26S, 27S, 28S, 30S, 34S, 35S, 48S, 49.1S, 49S, 51.1S, 51S, 54S)
1.200	80	>75% Grass cover, Good, HSG D (25S, 27S, 48S)
13.057	48	Brush, Good, HSG B (25S, 26S, 30S, 31S, 32S, 33.1S, 33S, 34S, 35S, 48S, 49.1S, 49S, 50S, 51S, 52S, 53S, 54S, 55S, 56S)
27.828	65	Brush, Good, HSG C (25S, 30S, 35S, 40S, 48S, 49.1S, 49S, 50S, 51.1S, 51S, 53S, 54S, 55S, 56S)
8.206	73	Brush, Good, HSG D (25S, 48S, 49S, 50S, 51.1S, 51S, 52S)
1.938	96	Gravel (27.1S, 28.1S, 32.1S, 33.1S, 49.1S, 56.1S)
0.649	96	Gravel surface (48S)
0.225	96	Gravel surface, HSG C (25.1S)
13.959	96	Gravel surface, HSG D (25S, 26S, 27S, 28S, 29S, 30S, 31S, 32S, 33S, 34S, 35S, 36S, 38S, 39S, 40S, 41S, 42S, 49S, 50S, 51S, 52S, 53S, 54S, 55S)
2.077	98	Impervious (26S, 33.1S, 37S, 49.1S, 49S)
1.258	98	Impervious Roof and Pavement (48S)
0.005	98	Impervious roof (49.2S)
441.409	58	Meadow, non-grazed, HSG B (25.1S, 25S, 26S, 27.1S, 27S, 28.1S, 28S, 29S, 30S, 31.1S, 31S, 32.1S, 32S, 33.1S, 33S, 34S, 35S, 36S, 37S, 38S, 39S, 40S, 41S, 42.2S, 42S, 48S, 49.1S, 49.2S, 49S, 50S, 51S, 52S, 53S, 54S, 55S, 56.1S, 56S)
426.414	71	Meadow, non-grazed, HSG C (25.1S, 25S, 26S, 27.1S, 27S, 28.1S, 28S, 29S, 30.1S, 30S, 31.1S, 31S, 32.1S, 32S, 33.1S, 33S, 34S, 35S, 36S, 38S, 39S, 40S, 41S, 42.1S, 42.2S, 42S, 48S, 49.1S, 49.2S, 49S, 50S, 51.1S, 51S, 52.1S, 52S, 53S, 54S, 55S, 56.1S, 56S)
33.827	78	Meadow, non-grazed, HSG D (25S, 26S, 33.1S, 33S, 39S, 40S, 41S, 48S, 49S, 50S, 51.1S, 51S, 52S)
7.763	98	Unconnected roofs, HSG D (25S, 27S, 28S, 29S, 30S, 33S, 34S, 35S, 38S, 39S, 40S, 50S, 51S, 54S, 55S)
7.824	98	Water Surface, HSG D (27S, 32S, 39S, 40S, 48S, 49S, 50S, 52S, 53S, 54S)
3.907	30	Woods, Good, HSG A (38S)
130.513	55	Woods, Good, HSG B (29S, 30S, 31S, 32S, 33S, 34S, 35S, 36S, 37S, 38S, 39S, 40S, 41S, 42S, 48S, 49S, 50S, 51S, 52S, 54S, 55S, 56S)
29.622	70	Woods, Good, HSG C (25S, 30S, 31S, 33S, 35S, 39S, 40S, 41S, 42S, 48S, 49.1S, 49S, 50S, 51.1S, 51S, 52S, 53S, 55S, 56S)
1.037	77	Woods, Good, HSG D (39S, 48S, 49S, 51S)
1,185.202	**65**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
3.907	HSG A	38S
603.839	HSG B	25.1S, 25S, 26S, 27.1S, 27S, 28.1S, 28S, 29S, 30S, 31.1S, 31S, 32.1S, 32S, 33.1S, 33S, 34S, 35S, 36S, 37S, 38S, 39S, 40S, 41S, 42.2S, 42S, 48S, 49.1S, 49.2S, 49S, 50S, 51S, 52S, 53S, 54S, 55S, 56.1S, 56S
497.713	HSG C	25.1S, 25S, 26S, 27.1S, 27S, 28.1S, 28S, 29S, 30.1S, 30S, 31.1S, 31S, 32.1S, 32S, 33.1S, 33S, 34S, 35S, 36S, 38S, 39S, 40S, 41S, 42.1S, 42.2S, 42S, 48S, 49.1S, 49.2S, 49S, 50S, 51.1S, 51S, 52.1S, 52S, 53S, 54S, 55S, 56.1S, 56S
73.816	HSG D	25S, 26S, 27S, 28S, 29S, 30S, 31S, 32S, 33.1S, 33S, 34S, 35S, 36S, 38S, 39S, 40S, 41S, 42S, 48S, 49S, 50S, 51.1S, 51S, 52S, 53S, 54S, 55S
5.927	Other	26S, 27.1S, 28.1S, 32.1S, 33.1S, 37S, 48S, 49.1S, 49.2S, 49S, 56.1S
1,185.202		**TOTAL AREA**

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment25.1S: Sub 25.1 Runoff Area=3.422 ac 0.00% Impervious Runoff Depth=0.31"
Flow Length=564' Tc=12.4 min CN=70 Runoff=1.05 cfs 0.088 af

Subcatchment25S: Sub 25 Runoff Area=15.820 ac 0.63% Impervious Runoff Depth=0.40"
Flow Length=1,104' Tc=22.2 min CN=73 Runoff=5.09 cfs 0.526 af

Subcatchment26S: Sub 26 Runoff Area=14.925 ac 5.39% Impervious Runoff Depth=0.18"
Flow Length=1,324' Tc=18.0 min CN=65 Runoff=1.36 cfs 0.229 af

Subcatchment27.1S: Sub 27.1 Runoff Area=3.749 ac 0.00% Impervious Runoff Depth=0.34"
Flow Length=831' Tc=14.7 min CN=71 Runoff=1.22 cfs 0.105 af

Subcatchment27S: Sub 27 Runoff Area=19.044 ac 2.34% Impervious Runoff Depth=0.21"
Flow Length=1,602' Tc=17.8 min CN=66 Runoff=2.24 cfs 0.328 af

Subcatchment28.1S: Sub 28.1 Runoff Area=2.160 ac 0.00% Impervious Runoff Depth=0.34"
Flow Length=409' Tc=11.9 min CN=71 Runoff=0.79 cfs 0.061 af

Subcatchment28S: Sub 28 Runoff Area=19.213 ac 0.59% Impervious Runoff Depth=0.18"
Flow Length=1,727' Tc=27.4 min UI Adjusted CN=65 Runoff=1.35 cfs 0.295 af

Subcatchment29S: Sub 29 Runoff Area=19.201 ac 1.25% Impervious Runoff Depth=0.13"
Flow Length=1,656' Tc=26.3 min CN=62 Runoff=0.59 cfs 0.202 af

Subcatchment30.1S: Sub 30.1 Runoff Area=4.003 ac 0.00% Impervious Runoff Depth=0.34"
Flow Length=1,131' Tc=29.7 min CN=71 Runoff=0.80 cfs 0.112 af

Subcatchment30S: Sub 30 Runoff Area=32.197 ac 1.38% Impervious Runoff Depth=0.14"
Flow Length=2,349' Tc=29.2 min CN=63 Runoff=1.29 cfs 0.387 af

Subcatchment31.1S: Sub 31.1 Runoff Area=0.925 ac 0.00% Impervious Runoff Depth=0.31"
Flow Length=267' Tc=10.3 min CN=70 Runoff=0.32 cfs 0.024 af

Subcatchment31S: Sub 31 Runoff Area=24.402 ac 0.00% Impervious Runoff Depth=0.13"
Flow Length=2,354' Tc=30.5 min CN=62 Runoff=0.71 cfs 0.256 af

Subcatchment32.1S: 32.1S Runoff Area=5.376 ac 0.00% Impervious Runoff Depth=0.31"
Flow Length=867' Tc=20.0 min CN=70 Runoff=1.22 cfs 0.138 af

Subcatchment32S: Sub 32 Runoff Area=39.541 ac 7.07% Impervious Runoff Depth=0.14"
Flow Length=2,402' Tc=27.3 min CN=63 Runoff=1.64 cfs 0.475 af

Subcatchment33.1S: 33.1S Runoff Area=12.768 ac 1.41% Impervious Runoff Depth=0.40"
Flow Length=1,561' Tc=36.2 min CN=73 Runoff=2.90 cfs 0.424 af

Subcatchment33S: Sub 33 Runoff Area=78.535 ac 0.56% Impervious Runoff Depth=0.05"
Flow Length=1,749' Tc=22.2 min CN=57 Runoff=0.46 cfs 0.349 af

Subcatchment34S: Sub 34 Runoff Area=25.795 ac 1.16% Impervious Runoff Depth=0.13"
Flow Length=1,380' Tc=24.0 min CN=62 Runoff=0.81 cfs 0.271 af

Subcatchment35S: Sub 35 Runoff Area=54.779 ac 2.01% Impervious Runoff Depth=0.18"
Flow Length=3,081' Tc=40.4 min CN=65 Runoff=3.11 cfs 0.842 af

Subcatchment36S: Sub 36 Runoff Area=46.618 ac 0.00% Impervious Runoff Depth=0.14"
Flow Length=1,996' Tc=23.3 min CN=63 Runoff=2.07 cfs 0.560 af

Subcatchment37S: Sub 37 Runoff Area=10.440 ac 5.80% Impervious Runoff Depth=0.09"
Flow Length=1,926' Tc=33.1 min CN=60 Runoff=0.16 cfs 0.081 af

Subcatchment38S: Sub 38 Runoff Area=71.315 ac 1.11% Impervious Runoff Depth=0.16"
Flow Length=3,404' Tc=47.6 min CN=64 Runoff=2.95 cfs 0.973 af

Subcatchment39S: Sub 39 Runoff Area=114.576 ac 0.49% Impervious Runoff Depth=0.13"
Flow Length=2,852' Tc=30.0 min CN=62 Runoff=3.35 cfs 1.203 af

Subcatchment40S: Sub 40 Runoff Area=20.880 ac 7.94% Impervious Runoff Depth=0.28"
Flow Length=1,917' Tc=28.9 min CN=69 Runoff=3.15 cfs 0.488 af

Subcatchment41S: Sub 41 Runoff Area=60.164 ac 0.00% Impervious Runoff Depth=0.13"
Flow Length=2,626' Tc=33.1 min CN=62 Runoff=1.71 cfs 0.632 af

Subcatchment42.1S: 42.1P Runoff Area=1.588 ac 0.00% Impervious Runoff Depth=0.34"
Tc=6.0 min CN=71 Runoff=0.78 cfs 0.045 af

Subcatchment42.2S: 42.2P Runoff Area=3.269 ac 0.00% Impervious Runoff Depth=0.23"
Tc=6.0 min CN=67 Runoff=0.87 cfs 0.063 af

Subcatchment42S: Sub 42 Runoff Area=45.032 ac 0.00% Impervious Runoff Depth=0.09"
Flow Length=1,067' Tc=27.0 min CN=60 Runoff=0.71 cfs 0.350 af

Subcatchment48S: Sub 48 Runoff Area=72.538 ac 2.48% Impervious Runoff Depth=0.34"
Flow Length=4,007' Tc=38.1 min CN=71 Runoff=12.18 cfs 2.035 af

Subcatchment49.1S: Sub 49.1 Runoff Area=4.740 ac 6.79% Impervious Runoff Depth=0.18"
Tc=10.0 min CN=65 Runoff=0.63 cfs 0.073 af

Subcatchment49.2S: 49.2S Runoff Area=3.533 ac 0.14% Impervious Runoff Depth=0.31"
Tc=6.0 min CN=70 Runoff=1.52 cfs 0.091 af

Subcatchment49S: Sub 49 Runoff Area=31.263 ac 0.62% Impervious Runoff Depth=0.18"
Flow Length=2,999' Tc=38.0 min CN=65 Runoff=1.83 cfs 0.481 af

Subcatchment50S: Sub 50 Runoff Area=45.772 ac 1.25% Impervious Runoff Depth=0.25"
Flow Length=2,533' Tc=29.4 min CN=68 Runoff=5.73 cfs 0.971 af

Subcatchment51.1S: 51.1S Runoff Area=8.131 ac 0.00% Impervious Runoff Depth=0.40"
Flow Length=1,025' Tc=26.3 min CN=73 Runoff=2.32 cfs 0.270 af

Subcatchment51S: Sub 51 Runoff Area=95.556 ac 0.76% Impervious Runoff Depth=0.16"
Flow Length=3,172' Tc=41.1 min CN=64 Runoff=4.28 cfs 1.304 af

Subcatchment52.1S: 52.1S Runoff Area=0.805 ac 0.00% Impervious Runoff Depth=0.34"
Tc=0.0 min CN=71 Runoff=0.49 cfs 0.023 af

Subcatchment52S: Sub 52 Runoff Area=14.017 ac 2.95% Impervious Runoff Depth=0.28"
Flow Length=1,182' Tc=22.0 min CN=69 Runoff=2.55 cfs 0.328 af

Subcatchment53S: Sub 53 Runoff Area=21.434 ac 1.80% Impervious Runoff Depth=0.23"
Flow Length=2,555' Tc=37.9 min CN=67 Runoff=1.89 cfs 0.410 af

Subcatchment54S: Sub 54 Runoff Area=47.809 ac 7.82% Impervious Runoff Depth=0.28"
Flow Length=3,546' Tc=37.2 min UI Adjusted CN=69 Runoff=6.06 cfs 1.117 af

Subcatchment55S: Sub 55 Runoff Area=27.115 ac 0.71% Impervious Runoff Depth=0.23"
Flow Length=2,240' Tc=41.1 min CN=67 Runoff=2.28 cfs 0.519 af

Subcatchment56.1S: 56.1S Runoff Area=27.373 ac 0.00% Impervious Runoff Depth=0.31"
Flow Length=1,864' Tc=23.1 min CN=70 Runoff=5.66 cfs 0.702 af

Subcatchment56S: Sub 56 Runoff Area=35.379 ac 0.00% Impervious Runoff Depth=0.21"
Flow Length=1,907' Tc=23.9 min CN=66 Runoff=3.42 cfs 0.609 af

Reach 33R: Avg. Flow Depth=0.26' Max Vel=1.11 fps Inflow=0.81 cfs 0.271 af
n=0.100 L=1,875.0' S=0.0597 '/' Capacity=10.60 cfs Outflow=0.58 cfs 0.271 af

Reach 39R: Avg. Flow Depth=0.40' Max Vel=1.91 fps Inflow=3.15 cfs 0.488 af
n=0.100 L=1,110.0' S=0.0991 '/' Capacity=86.68 cfs Outflow=2.69 cfs 0.488 af

Reach 42R: S-NSD-16 Avg. Flow Depth=0.37' Max Vel=1.33 fps Inflow=1.83 cfs 0.481 af
n=0.100 L=1,790.0' S=0.0531 '/' Capacity=51.95 cfs Outflow=1.40 cfs 0.481 af

Pond 25.1P: 25.1P Peak Elev=604.67' Storage=3,824 cf Inflow=1.05 cfs 0.088 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 27.1P: 27.1P Peak Elev=551.57' Storage=4,582 cf Inflow=1.22 cfs 0.105 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 28.1P: 28.1P Peak Elev=558.71' Storage=2,640 cf Inflow=0.79 cfs 0.061 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 30.1P: 30.1P Peak Elev=460.00' Storage=4,290 cf Inflow=0.80 cfs 0.112 af
Discarded=0.01 cfs 0.040 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.040 af

Pond 31.1P: 31.1P Peak Elev=510.12' Storage=460 cf Inflow=0.32 cfs 0.024 af
Discarded=0.02 cfs 0.024 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.024 af

Pond 32.1P: 32.1P Peak Elev=552.53' Storage=6,008 cf Inflow=1.22 cfs 0.138 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 33.1P: 33.1P Peak Elev=590.61' Storage=18,155 cf Inflow=2.90 cfs 0.424 af
Primary=0.03 cfs 0.042 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.042 af

Pond 34P: VAN EPPS RD CULVERT Peak Elev=580.48' Storage=12 cf Inflow=0.81 cfs 0.271 af
Primary=0.81 cfs 0.271 af Secondary=0.00 cfs 0.000 af Outflow=0.81 cfs 0.271 af

Pond 42P: 42P Peak Elev=458.43' Storage=4,668 cf Inflow=1.64 cfs 0.107 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 49.1P: 49.1P Peak Elev=532.48' Storage=3,174 cf Inflow=0.63 cfs 0.073 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 49.2P: 49.2S Peak Elev=522.76' Storage=3,710 cf Inflow=1.52 cfs 0.091 af
Primary=0.03 cfs 0.015 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.015 af

Pond 51.1P: 51.1P Peak Elev=603.44' Storage=11,772 cf Inflow=2.32 cfs 0.270 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 52.1P: 52.1P Peak Elev=648.26' Storage=984 cf Inflow=0.49 cfs 0.023 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 56.1P: 56.1P Peak Elev=415.35' Storage=22,420 cf Inflow=5.66 cfs 0.702 af
Primary=0.30 cfs 0.308 af Secondary=0.00 cfs 0.000 af Outflow=0.30 cfs 0.308 af

Link SP25: Inflow=5.09 cfs 0.526 af
Primary=5.09 cfs 0.526 af

Link SP26: Inflow=1.36 cfs 0.229 af
Primary=1.36 cfs 0.229 af

Link SP27: Inflow=2.24 cfs 0.328 af
Primary=2.24 cfs 0.328 af

Link SP28: Inflow=1.35 cfs 0.295 af
Primary=1.35 cfs 0.295 af

Link SP29: Inflow=0.59 cfs 0.202 af
Primary=0.59 cfs 0.202 af

Link SP30: Inflow=1.29 cfs 0.387 af
Primary=1.29 cfs 0.387 af

Link SP34: Inflow=2.40 cfs 1.394 af
Primary=2.40 cfs 1.394 af

Link SP35: Inflow=3.11 cfs 0.842 af
Primary=3.11 cfs 0.842 af

Link SP36: Inflow=2.07 cfs 0.560 af
Primary=2.07 cfs 0.560 af

Link SP37: Inflow=0.16 cfs 0.081 af
Primary=0.16 cfs 0.081 af

Link SP38: Inflow=2.95 cfs 0.973 af
Primary=2.95 cfs 0.973 af

Link SP39: Inflow=5.95 cfs 1.691 af
Primary=5.95 cfs 1.691 af

Link SP41: Inflow=1.71 cfs 0.632 af
Primary=1.71 cfs 0.632 af

Link SP42: Inflow=2.01 cfs 0.846 af
Primary=2.01 cfs 0.846 af

Link SP48: Inflow=12.18 cfs 2.035 af
Primary=12.18 cfs 2.035 af

Link SP50: Inflow=5.73 cfs 0.971 af
Primary=5.73 cfs 0.971 af

Link SP51: Inflow=4.28 cfs 1.304 af
Primary=4.28 cfs 1.304 af

Link SP52: Inflow=2.55 cfs 0.328 af
Primary=2.55 cfs 0.328 af

Link SP53: Inflow=1.89 cfs 0.410 af
Primary=1.89 cfs 0.410 af

Link SP54: Inflow=6.06 cfs 1.117 af
Primary=6.06 cfs 1.117 af

Link SP55: Inflow=2.28 cfs 0.519 af
Primary=2.28 cfs 0.519 af

Link SP56: Inflow=3.42 cfs 0.917 af
Primary=3.42 cfs 0.917 af

Total Runoff Area = 1,185.202 ac Runoff Volume = 18.439 af Average Runoff Depth = 0.19"
98.40% Pervious = 1,166.275 ac 1.60% Impervious = 18.927 ac

Summary for Subcatchment 25.1S: Sub 25.1

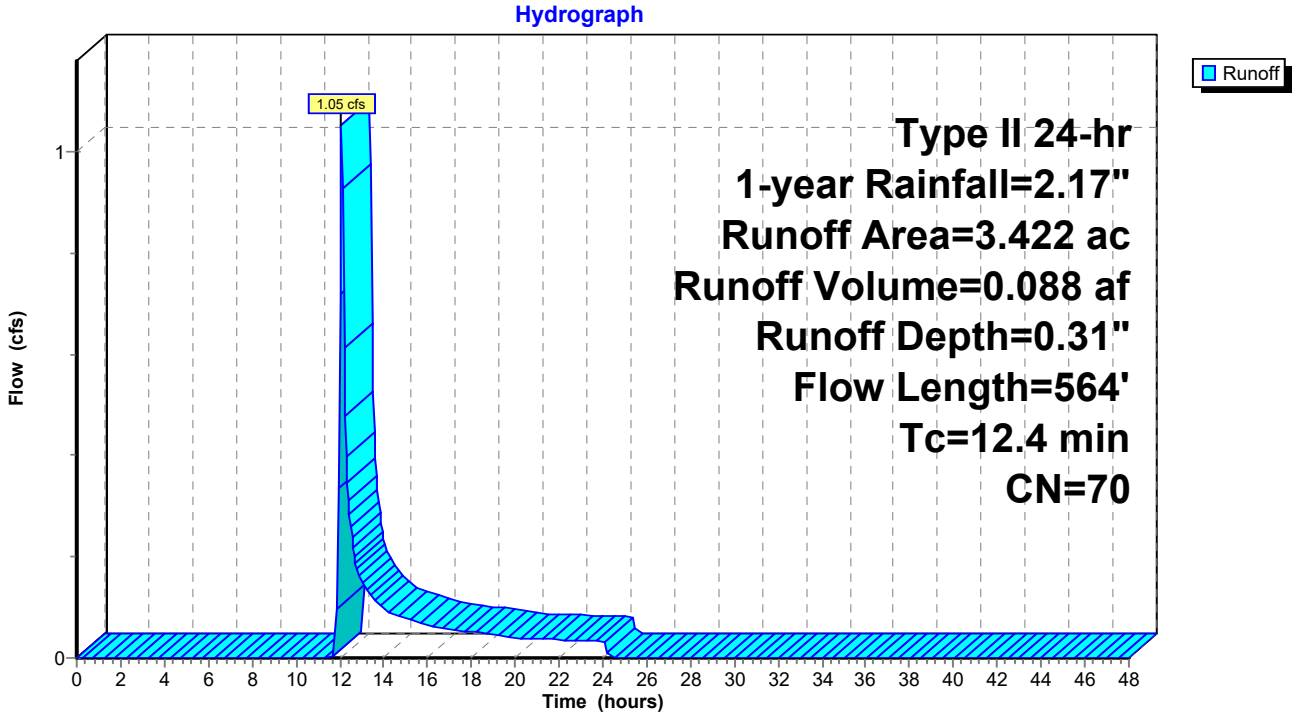
Runoff = 1.05 cfs @ 12.08 hrs, Volume= 0.088 af, Depth= 0.31"
Routed to Pond 25.1P : 25.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
2.622	71	Meadow, non-grazed, HSG C
0.225	96	Gravel surface, HSG C
0.575	58	Meadow, non-grazed, HSG B
3.422	70	Weighted Average
3.422		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	100	0.1080	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.5	35	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.3	429	0.0260	1.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.4	564	Total			

Subcatchment 25.1S: Sub 25.1



Summary for Subcatchment 25S: Sub 25

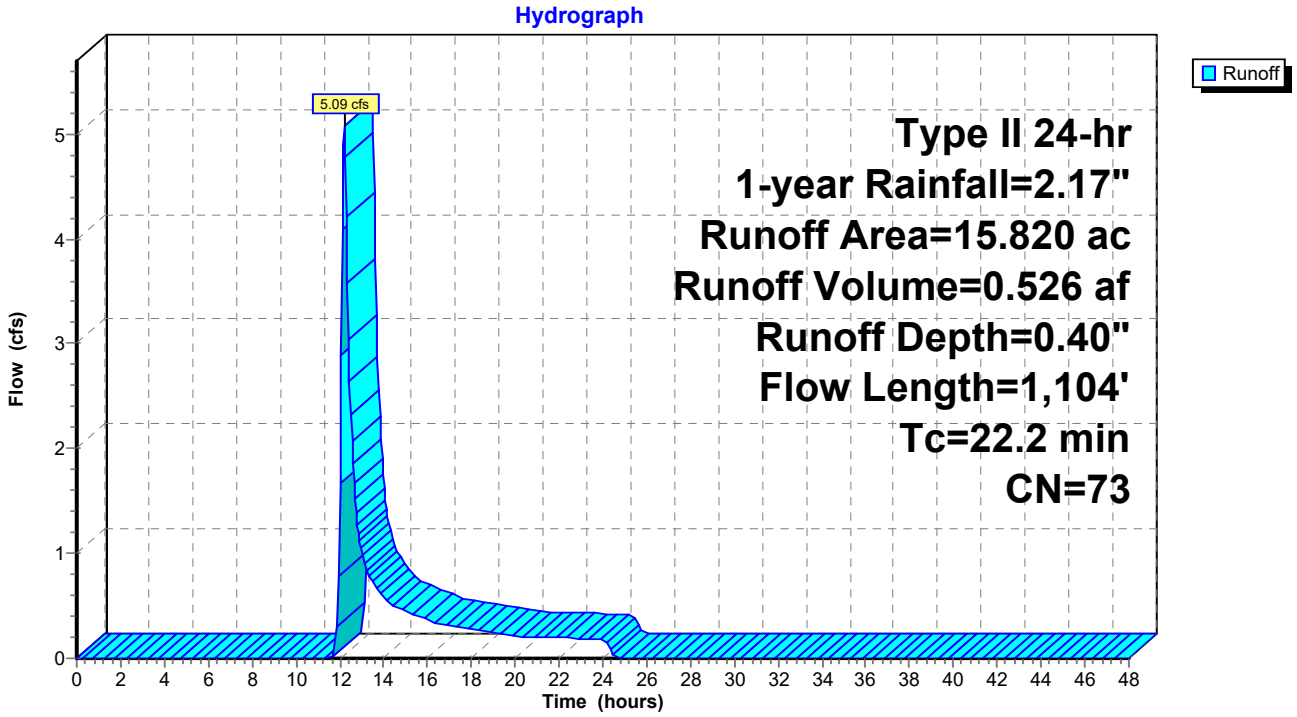
Runoff = 5.09 cfs @ 12.19 hrs, Volume= 0.526 af, Depth= 0.40"
Routed to Link SP25 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.050	48	Brush, Good, HSG B
0.279	65	Brush, Good, HSG C
0.181	73	Brush, Good, HSG D
0.099	98	Unconnected roofs, HSG D
0.210	58	Meadow, non-grazed, HSG B
10.133	71	Meadow, non-grazed, HSG C
3.694	78	Meadow, non-grazed, HSG D
0.455	74	>75% Grass cover, Good, HSG C
0.497	80	>75% Grass cover, Good, HSG D
0.020	70	Woods, Good, HSG C
0.202	96	Gravel surface, HSG D
15.820	73	Weighted Average
15.721		99.37% Pervious Area
0.099		0.63% Impervious Area
0.099		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0430	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.3	717	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	287		1.76		**Direct Entry, CF**
22.2	1,104	Total			

Subcatchment 25S: Sub 25



Summary for Subcatchment 26S: Sub 26

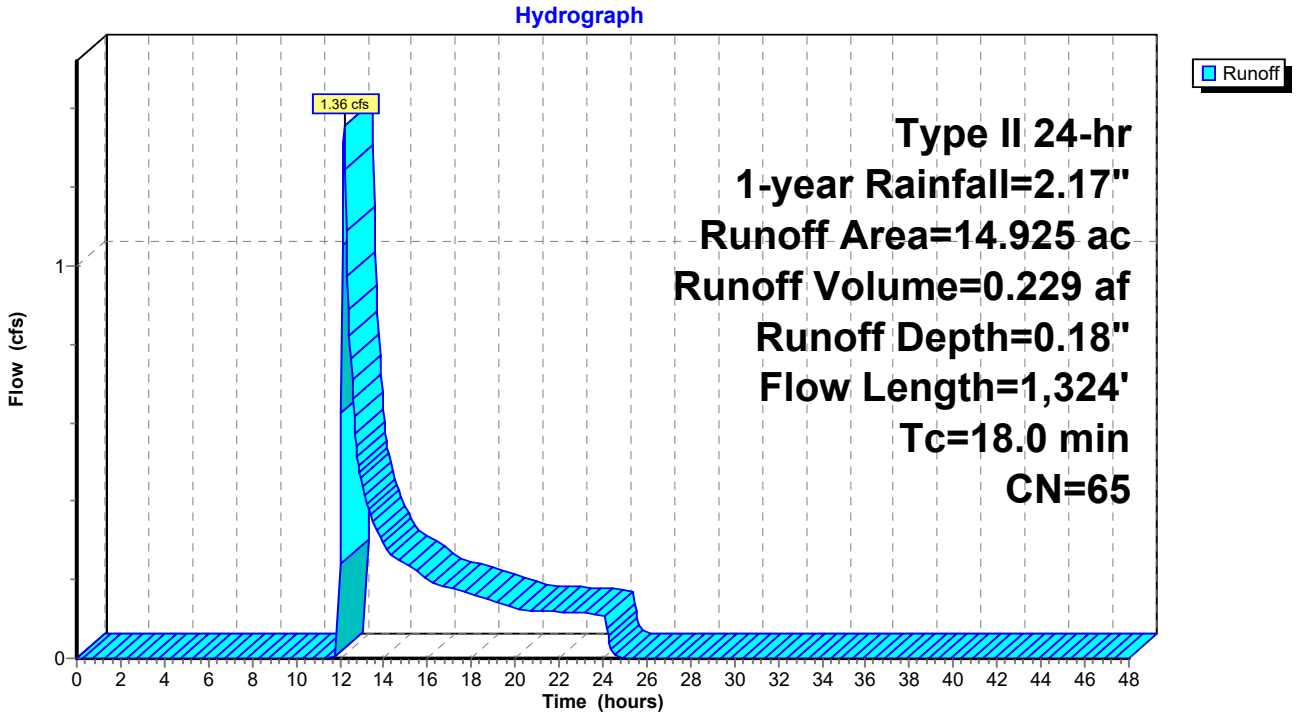
Runoff = 1.36 cfs @ 12.19 hrs, Volume= 0.229 af, Depth= 0.18"
Routed to Link SP26 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	0.114	48	Brush, Good, HSG B
	0.057	96	Gravel surface, HSG D
*	0.804	98	Impervious
	6.796	58	Meadow, non-grazed, HSG B
	2.989	71	Meadow, non-grazed, HSG C
	2.988	61	>75% Grass cover, Good, HSG B
	0.965	74	>75% Grass cover, Good, HSG C
	0.212	78	Meadow, non-grazed, HSG D
	14.925	65	Weighted Average
	14.121		94.61% Pervious Area
	0.804		5.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0280	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.2	340	0.1340	2.56		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	259	0.0540	1.63		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	625		3.06		**Direct Entry, CF**
18.0	1,324	Total			

Subcatchment 26S: Sub 26



Summary for Subcatchment 27.1S: Sub 27.1

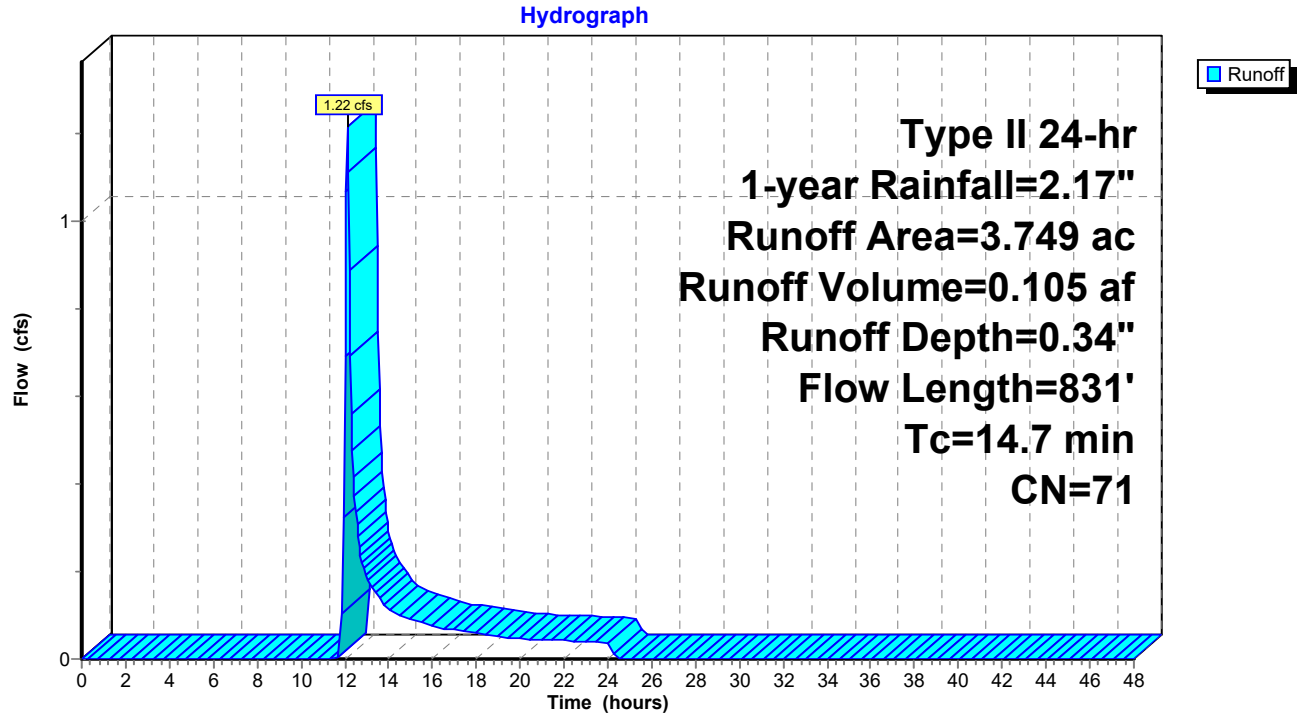
Runoff = 1.22 cfs @ 12.10 hrs, Volume= 0.105 af, Depth= 0.34"
Routed to Pond 27.1P : 27.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	3.035	71	Meadow, non-grazed, HSG C
	0.435	58	Meadow, non-grazed, HSG B
*	0.279	96	Gravel
	3.749	71	Weighted Average
	3.749		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.1	391	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.2	175	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	165	0.0530	1.61		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.7	831	Total			

Subcatchment 27.1S: Sub 27.1



Summary for Subcatchment 27S: Sub 27

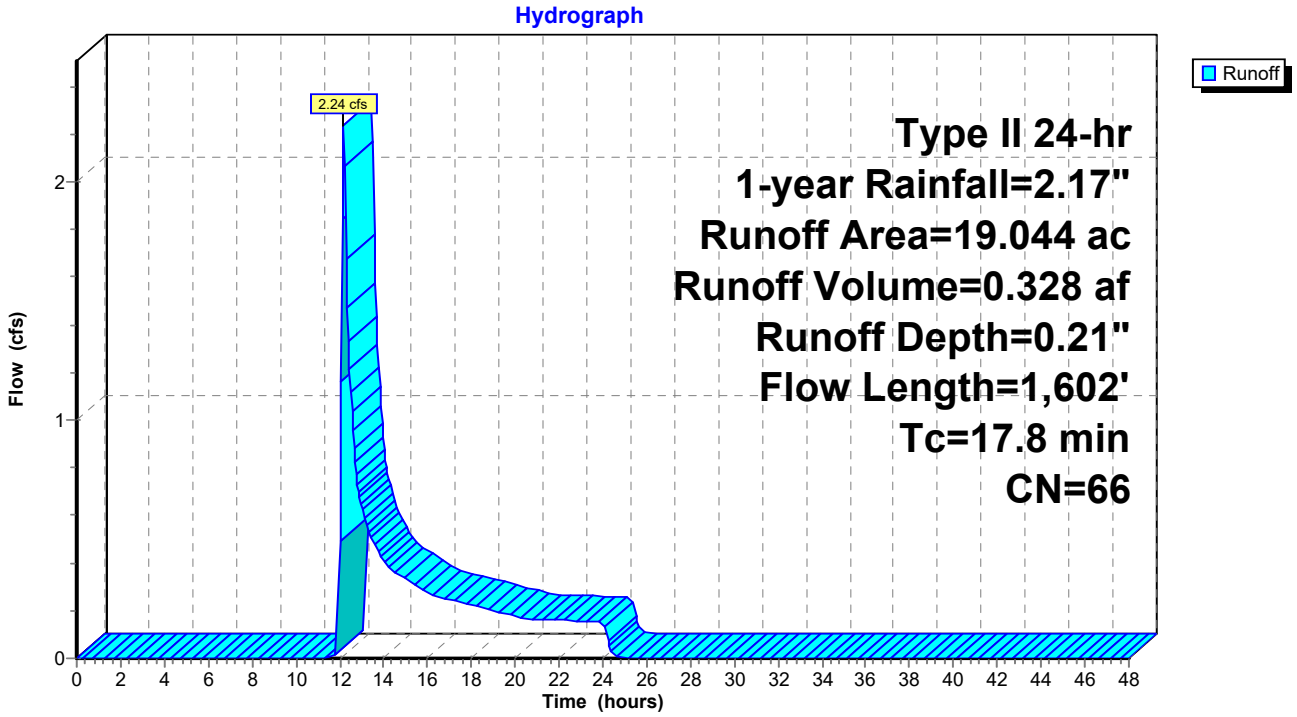
Runoff = 2.24 cfs @ 12.17 hrs, Volume= 0.328 af, Depth= 0.21"
Routed to Link SP27 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.254	96	Gravel surface, HSG D
0.064	98	Unconnected roofs, HSG D
8.719	58	Meadow, non-grazed, HSG B
7.839	71	Meadow, non-grazed, HSG C
0.231	61	>75% Grass cover, Good, HSG B
1.416	74	>75% Grass cover, Good, HSG C
0.140	80	>75% Grass cover, Good, HSG D
0.381	98	Water Surface, HSG D
19.044	66	Weighted Average
18.599		97.66% Pervious Area
0.445		2.34% Impervious Area
0.064		14.38% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0650	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
7.4	832	0.0720	1.88		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	670		3.19		**Direct Entry, CF**
17.8	1,602	Total			

Subcatchment 27S: Sub 27



Summary for Subcatchment 28.1S: Sub 28.1

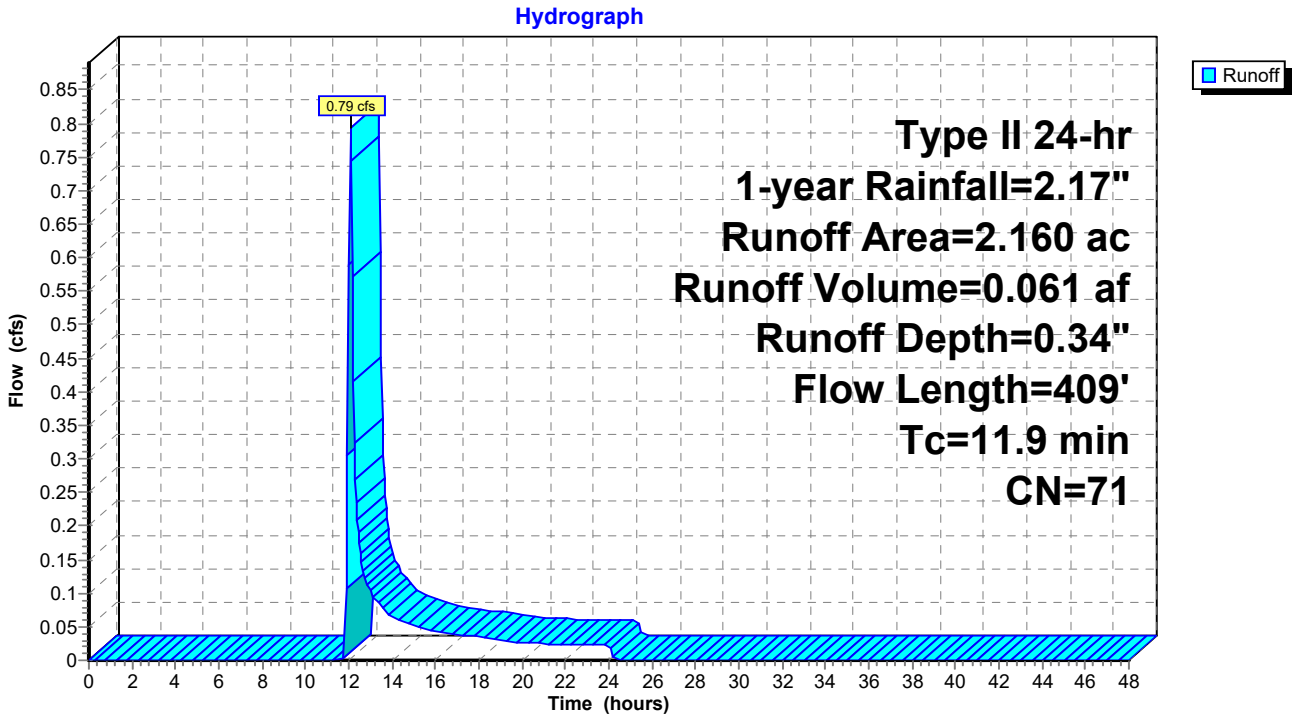
Runoff = 0.79 cfs @ 12.07 hrs, Volume= 0.061 af, Depth= 0.34"
Routed to Pond 28.1P : 28.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
*	0.051	96	Gravel
	0.068	58	Meadow, non-grazed, HSG B
	2.041	71	Meadow, non-grazed, HSG C
	2.160	71	Weighted Average
	2.160		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0420	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.7	309	0.0400	1.40		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
11.9	409	Total			

Subcatchment 28.1S: Sub 28.1



Summary for Subcatchment 28S: Sub 28

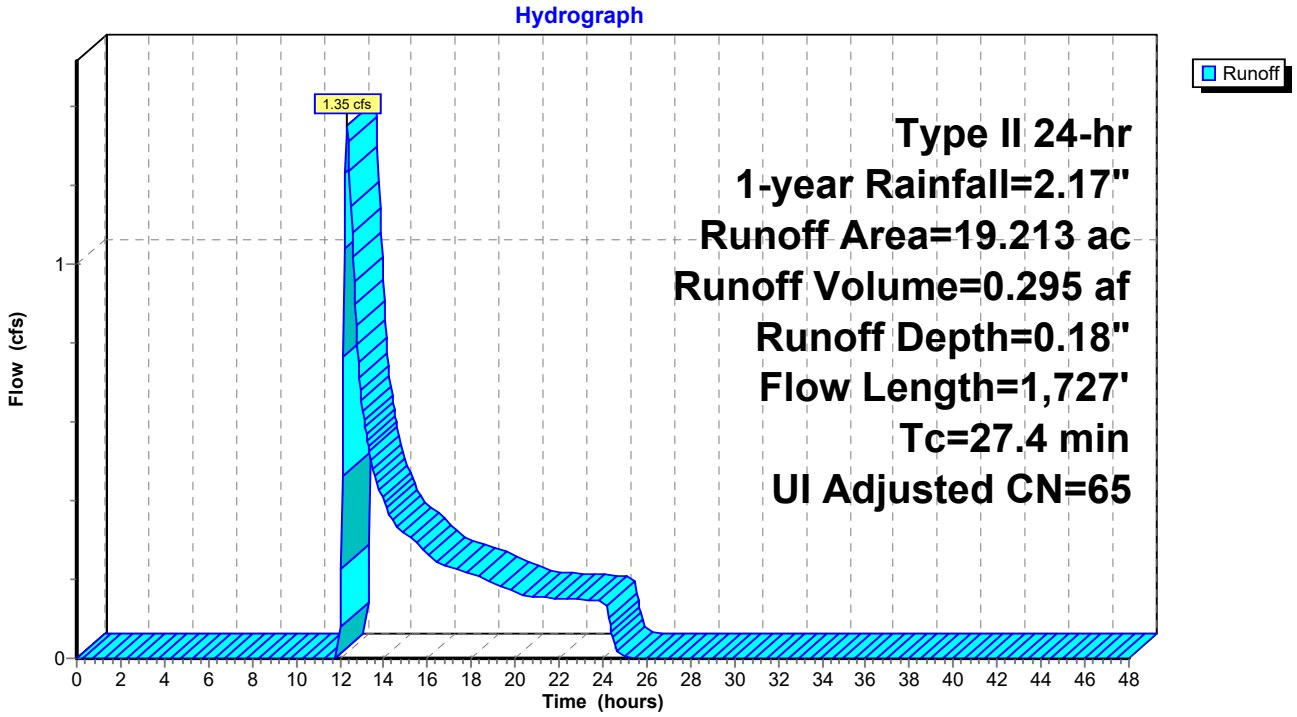
Runoff = 1.35 cfs @ 12.34 hrs, Volume= 0.295 af, Depth= 0.18"
Routed to Link SP28 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Adj	Description
0.547	96		Gravel surface, HSG D
0.114	98		Unconnected roofs, HSG D
8.804	58		Meadow, non-grazed, HSG B
7.984	71		Meadow, non-grazed, HSG C
0.902	61		>75% Grass cover, Good, HSG B
0.862	74		>75% Grass cover, Good, HSG C
19.213	66	65	Weighted Average, UI Adjusted
19.099			99.41% Pervious Area
0.114			0.59% Impervious Area
0.114			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0070	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
7.4	819	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.1	808	0.0420	4.36	6.53	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
27.4	1,727	Total			

Subcatchment 28S: Sub 28



Summary for Subcatchment 29S: Sub 29

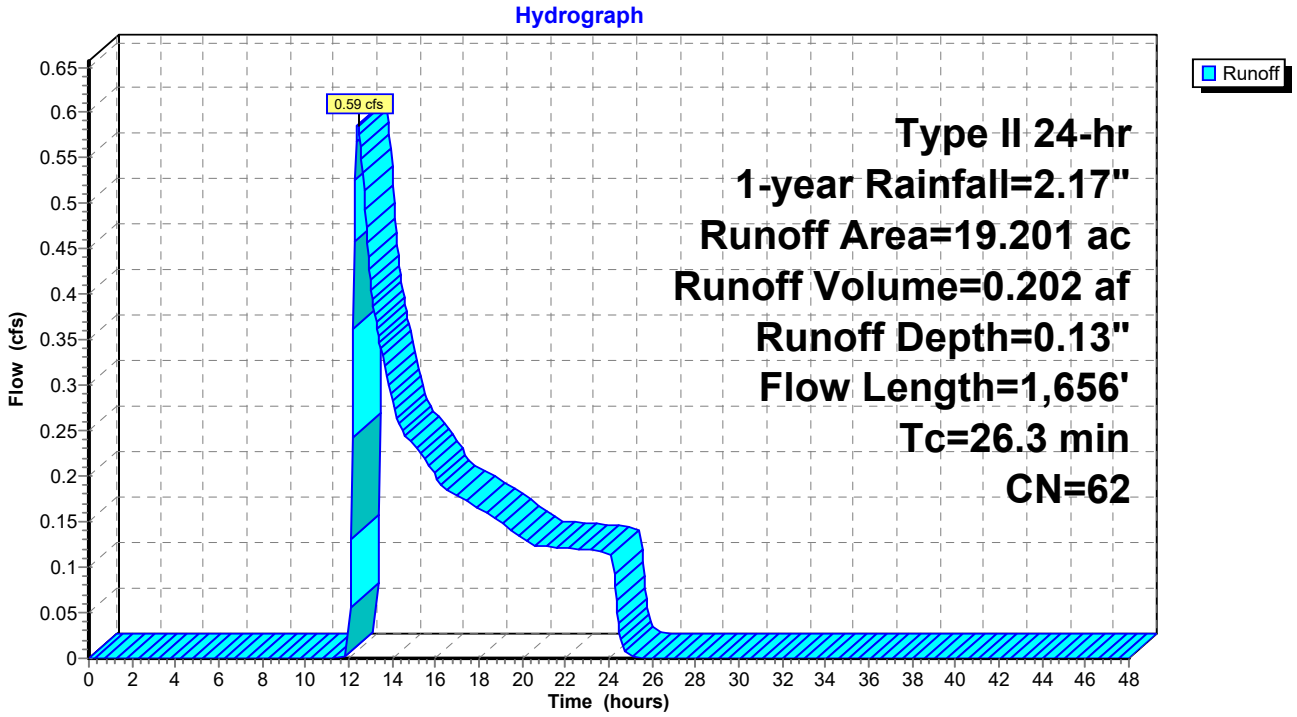
Runoff = 0.59 cfs @ 12.42 hrs, Volume= 0.202 af, Depth= 0.13"
Routed to Link SP29 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.326	96	Gravel surface, HSG D
0.240	98	Unconnected roofs, HSG D
14.674	58	Meadow, non-grazed, HSG B
3.955	71	Meadow, non-grazed, HSG C
0.006	55	Woods, Good, HSG B
19.201	62	Weighted Average
18.961		98.75% Pervious Area
0.240		1.25% Impervious Area
0.240		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0350	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
16.5	1,490	0.0460	1.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	66		1.22		**Direct Entry, CF**
26.3	1,656	Total			

Subcatchment 29S: Sub 29



Summary for Subcatchment 30.1S: Sub 30.1

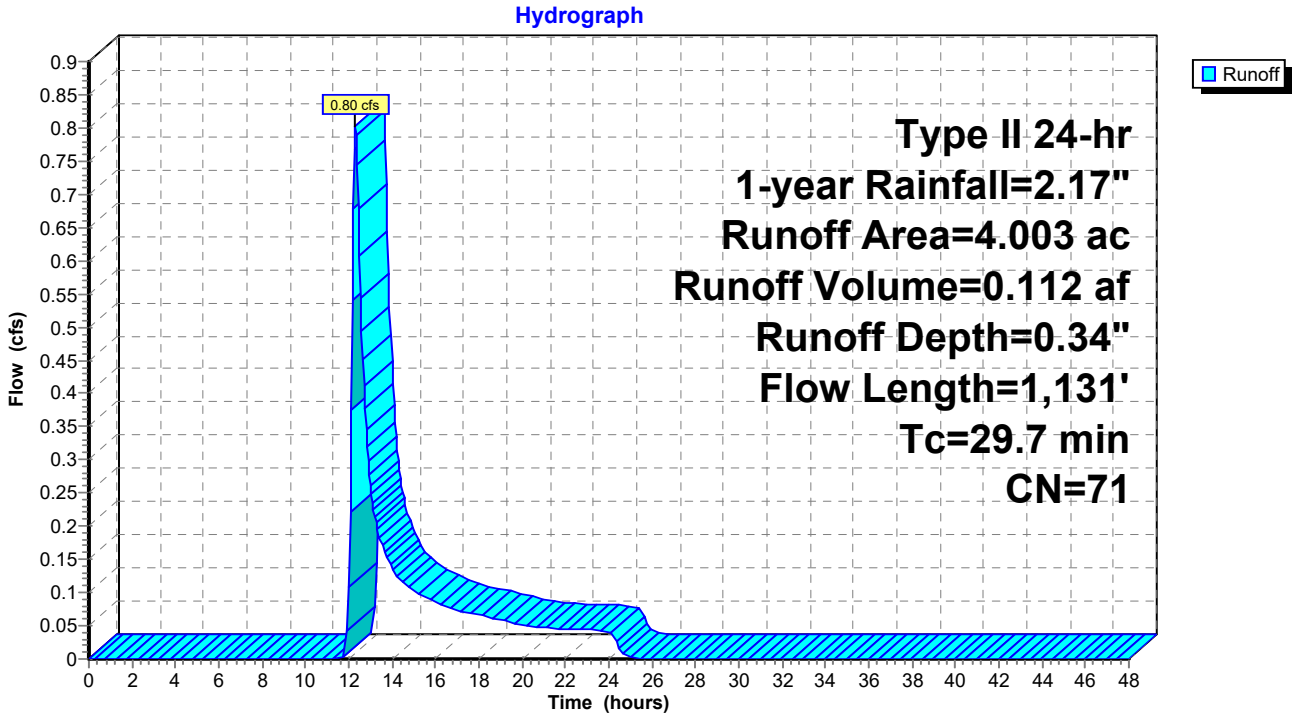
Runoff = 0.80 cfs @ 12.31 hrs, Volume= 0.112 af, Depth= 0.34"
Routed to Pond 30.1P : 30.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
4.003	71	Meadow, non-grazed, HSG C
4.003		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0090	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
14.4	1,031	0.0290	1.19		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
29.7	1,131	Total			

Subcatchment 30.1S: Sub 30.1



Summary for Subcatchment 30S: Sub 30

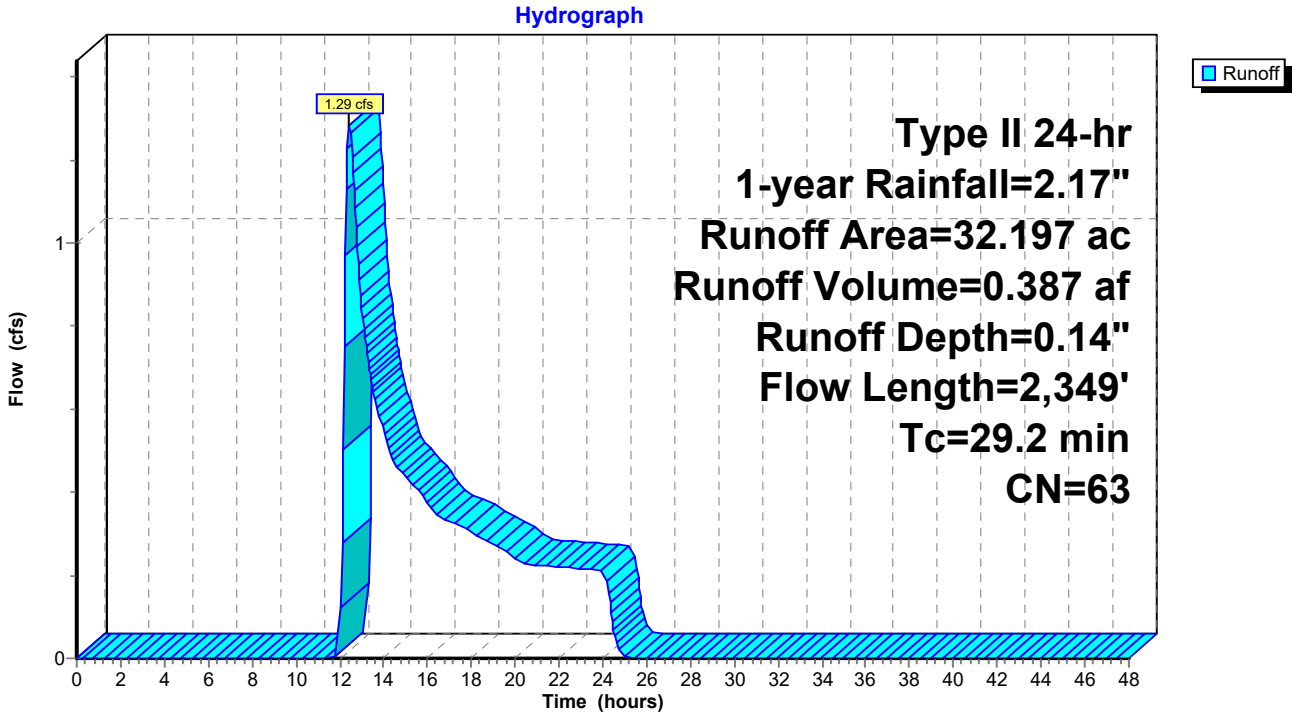
Runoff = 1.29 cfs @ 12.43 hrs, Volume= 0.387 af, Depth= 0.14"
Routed to Link SP30 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.214	48	Brush, Good, HSG B
0.283	65	Brush, Good, HSG C
1.013	96	Gravel surface, HSG D
0.445	98	Unconnected roofs, HSG D
19.622	58	Meadow, non-grazed, HSG B
8.229	71	Meadow, non-grazed, HSG C
0.221	61	>75% Grass cover, Good, HSG B
0.026	74	>75% Grass cover, Good, HSG C
2.132	55	Woods, Good, HSG B
0.012	70	Woods, Good, HSG C
32.197	63	Weighted Average
31.752		98.62% Pervious Area
0.445		1.38% Impervious Area
0.445		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.4	228	0.0260	1.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	171	0.1050	4.86		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.8	279	0.0570	1.67		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.5	554	0.0410	1.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.8	1,017	0.0290	3.52	6.15	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 3.0 '/' Top.W=5.00' n= 0.035 Earth, dense weeds
29.2	2,349	Total			

Subcatchment 30S: Sub 30



Summary for Subcatchment 31.1S: Sub 31.1

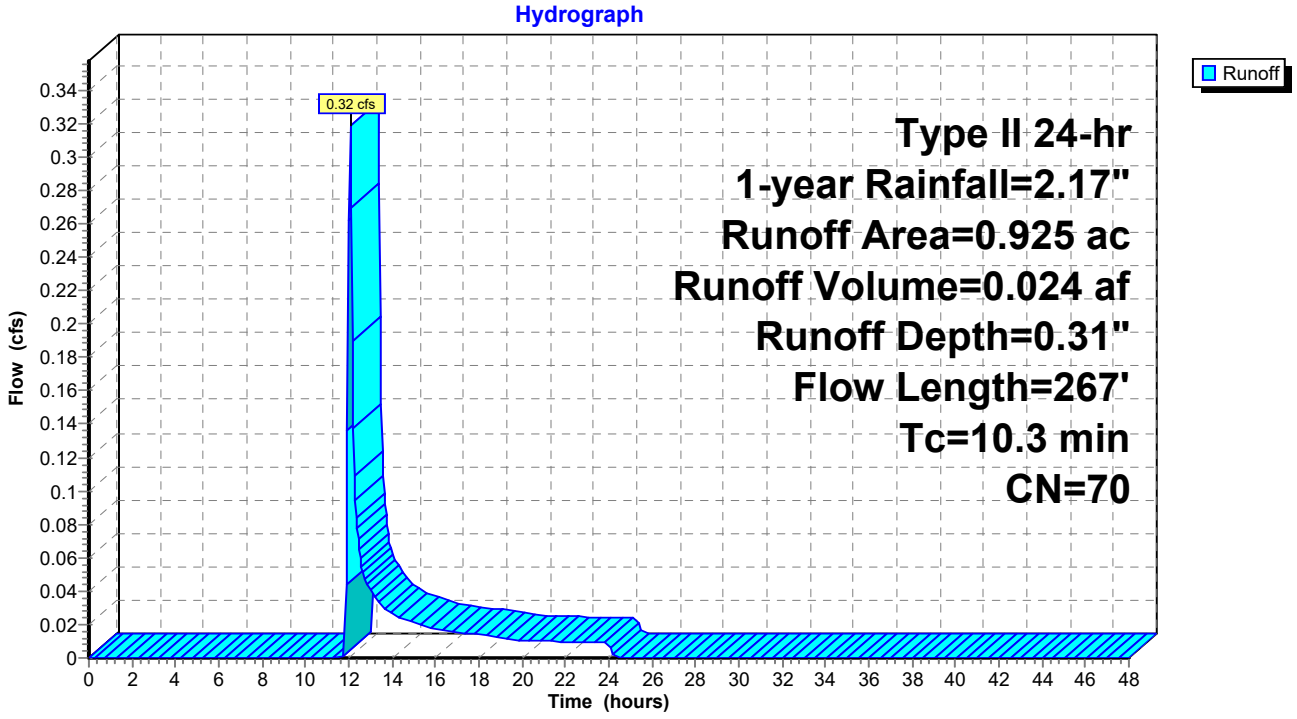
Runoff = 0.32 cfs @ 12.05 hrs, Volume= 0.024 af, Depth= 0.31"
Routed to Pond 31.1P : 31.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.047	58	Meadow, non-grazed, HSG B
0.878	71	Meadow, non-grazed, HSG C
0.925	70	Weighted Average
0.925		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	100	0.0330	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.9	90	0.0522	1.60		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	77	0.0130	4.02	20.10	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 3.0 '/' Top.W=8.00' n= 0.030 Earth, grassed & winding
10.3	267	Total			

Subcatchment 31.1S: Sub 31.1



Summary for Subcatchment 31S: Sub 31

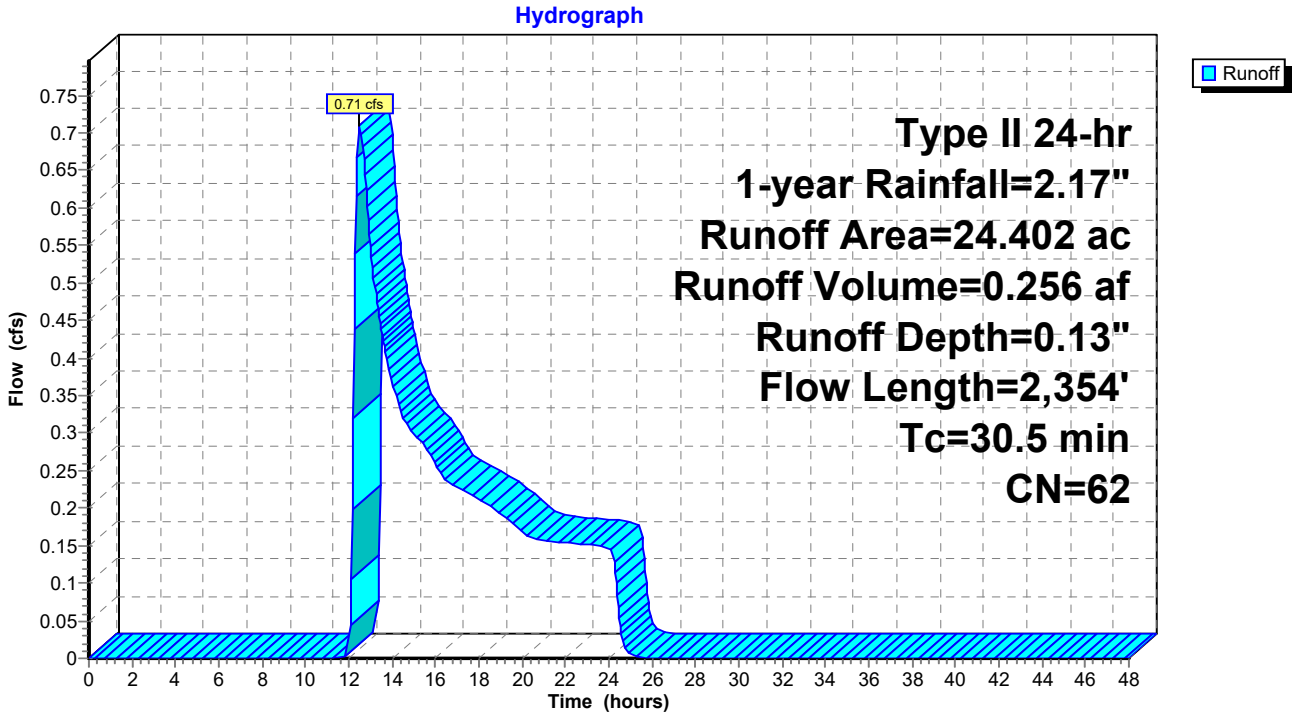
Runoff = 0.71 cfs @ 12.51 hrs, Volume= 0.256 af, Depth= 0.13"
Routed to Link SP34 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.029	48	Brush, Good, HSG B
14.311	58	Meadow, non-grazed, HSG B
6.600	71	Meadow, non-grazed, HSG C
2.870	55	Woods, Good, HSG B
0.044	70	Woods, Good, HSG C
0.548	96	Gravel surface, HSG D
24.402	62	Weighted Average
24.402		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0420	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
18.9	1,401	0.0310	1.23		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	853	0.0938	4.18	4.18	**Parabolic Channel,** W=3.00' D=0.50' Area=1.0 sf Perim=3.2' n= 0.050 Mountain streams w/large boulders
30.5	2,354	Total			

Subcatchment 31S: Sub 31



Summary for Subcatchment 32.1S: 32.1S

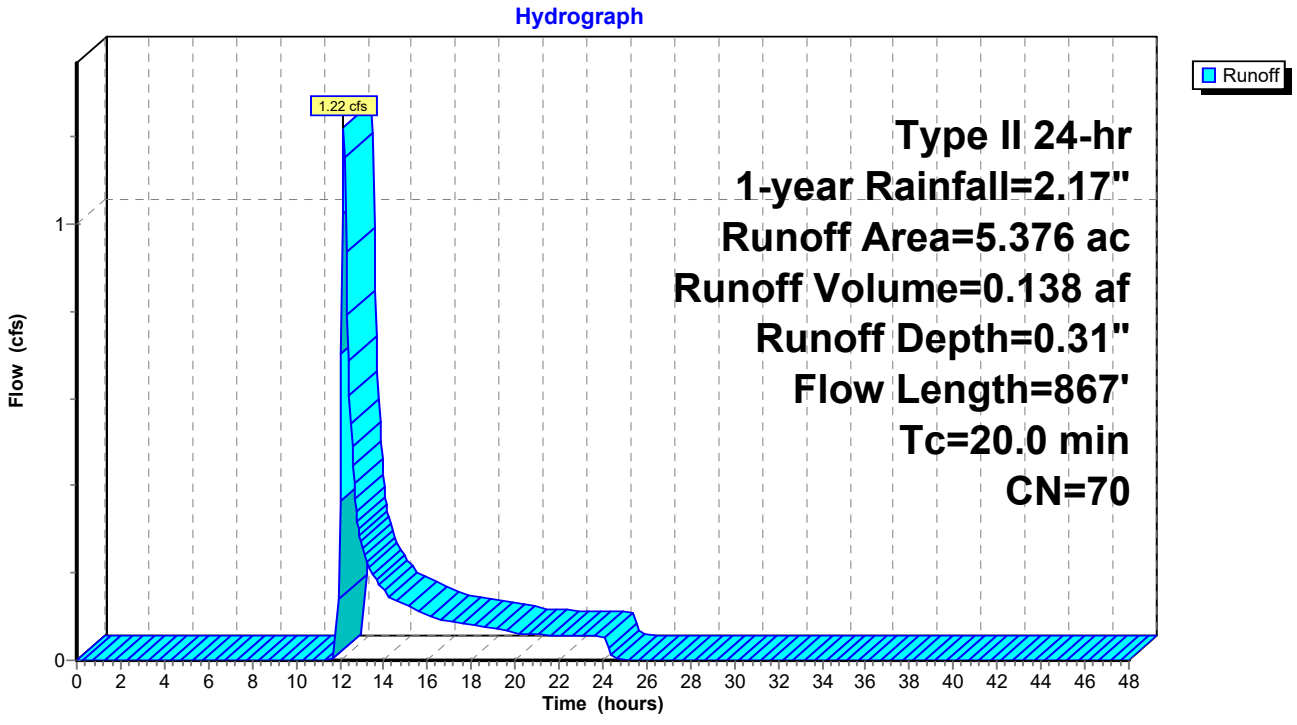
Runoff = 1.22 cfs @ 12.18 hrs, Volume= 0.138 af, Depth= 0.31"
Routed to Pond 32.1P : 32.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
*	0.166	96	Gravel
	0.888	58	Meadow, non-grazed, HSG B
	4.322	71	Meadow, non-grazed, HSG C
	5.376	70	Weighted Average
	5.376		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0450	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
12.0	767	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.0	867	Total			

Subcatchment 32.1S: 32.1S



Summary for Subcatchment 32S: Sub 32

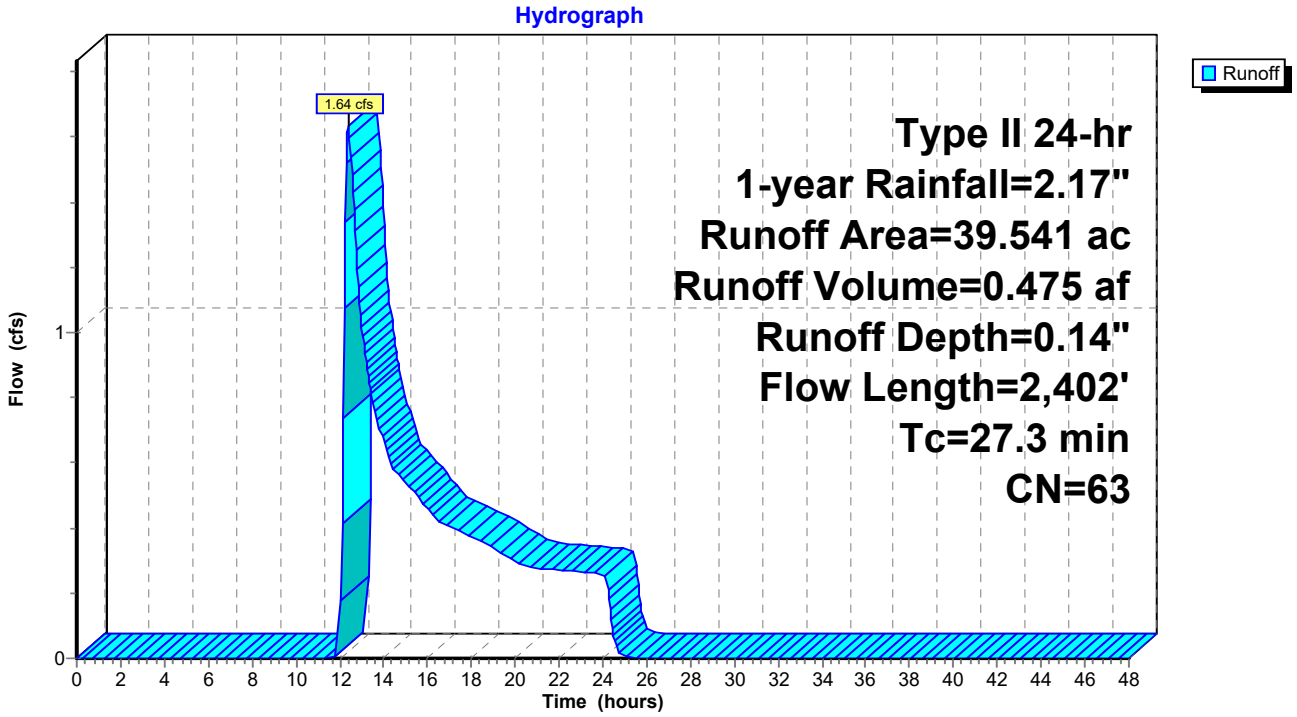
Runoff = 1.64 cfs @ 12.39 hrs, Volume= 0.475 af, Depth= 0.14"
Routed to Link SP34 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.124	48	Brush, Good, HSG B
25.962	58	Meadow, non-grazed, HSG B
4.042	71	Meadow, non-grazed, HSG C
2.796	98	Water Surface, HSG D
5.751	55	Woods, Good, HSG B
0.866	96	Gravel surface, HSG D
39.541	63	Weighted Average
36.745		92.93% Pervious Area
2.796		7.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0280	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.6	160	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.6	495	0.1050	2.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.5	74	0.0270	0.82		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	99	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
6.5	550	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	924	0.0910	10.13	5.27	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.20' Z= 3.0 '/' Top.W=3.20' n= 0.013 Corrugated PE, smooth interior
27.3	2,402	Total			

Subcatchment 32S: Sub 32



Summary for Subcatchment 33.1S: 33.1S

[47] Hint: Peak is 143% of capacity of segment #3

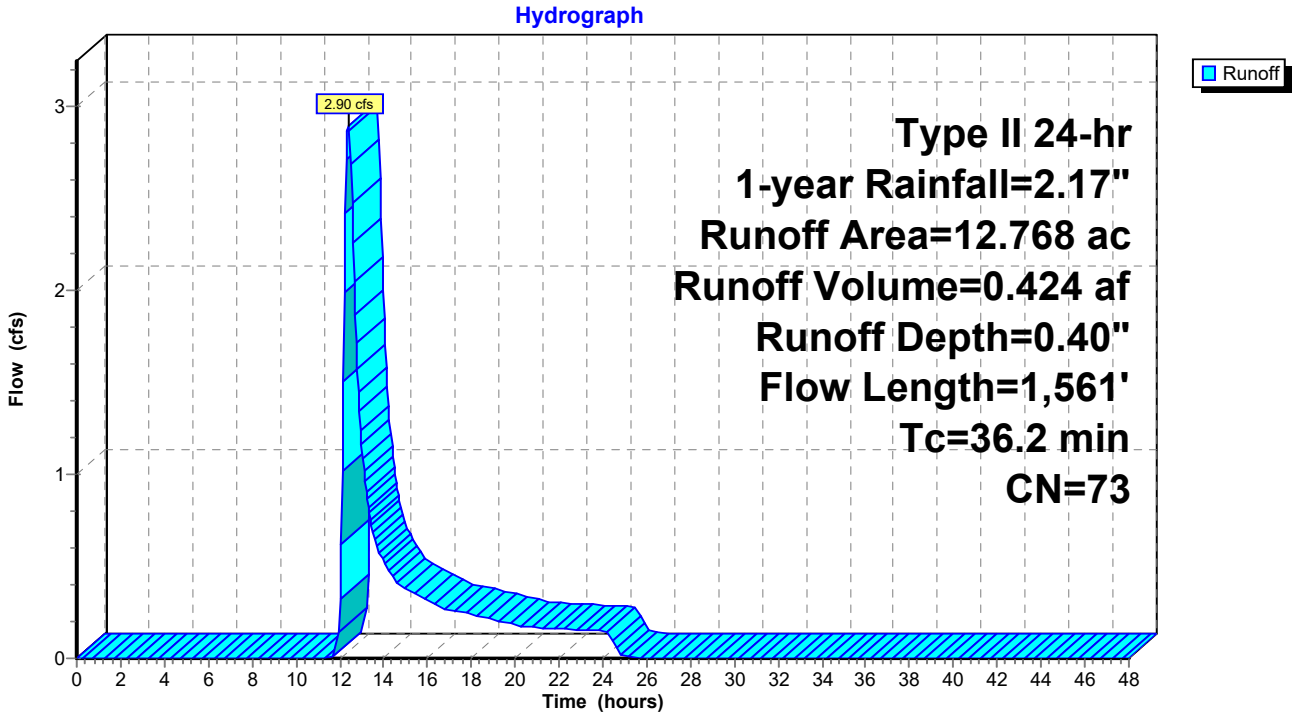
Runoff = 2.90 cfs @ 12.39 hrs, Volume= 0.424 af, Depth= 0.40"
Routed to Pond 33.1P : 33.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
*	0.536	96	Gravel
	0.787	58	Meadow, non-grazed, HSG B
	2.948	78	Meadow, non-grazed, HSG D
*	0.180	98	Impervious
	8.285	71	Meadow, non-grazed, HSG C
	0.032	48	Brush, Good, HSG B
	12.768	73	Weighted Average
	12.588		98.59% Pervious Area
	0.180		1.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0090	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
15.9	669	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	638	0.0150	4.23	2.03	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.20' Z= 2.0 '/' Top.W=2.80' n= 0.013 Corrugated PE, smooth interior
2.5	154	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
36.2	1,561	Total			

Subcatchment 33.1S: 33.1S



Summary for Subcatchment 33S: Sub 33

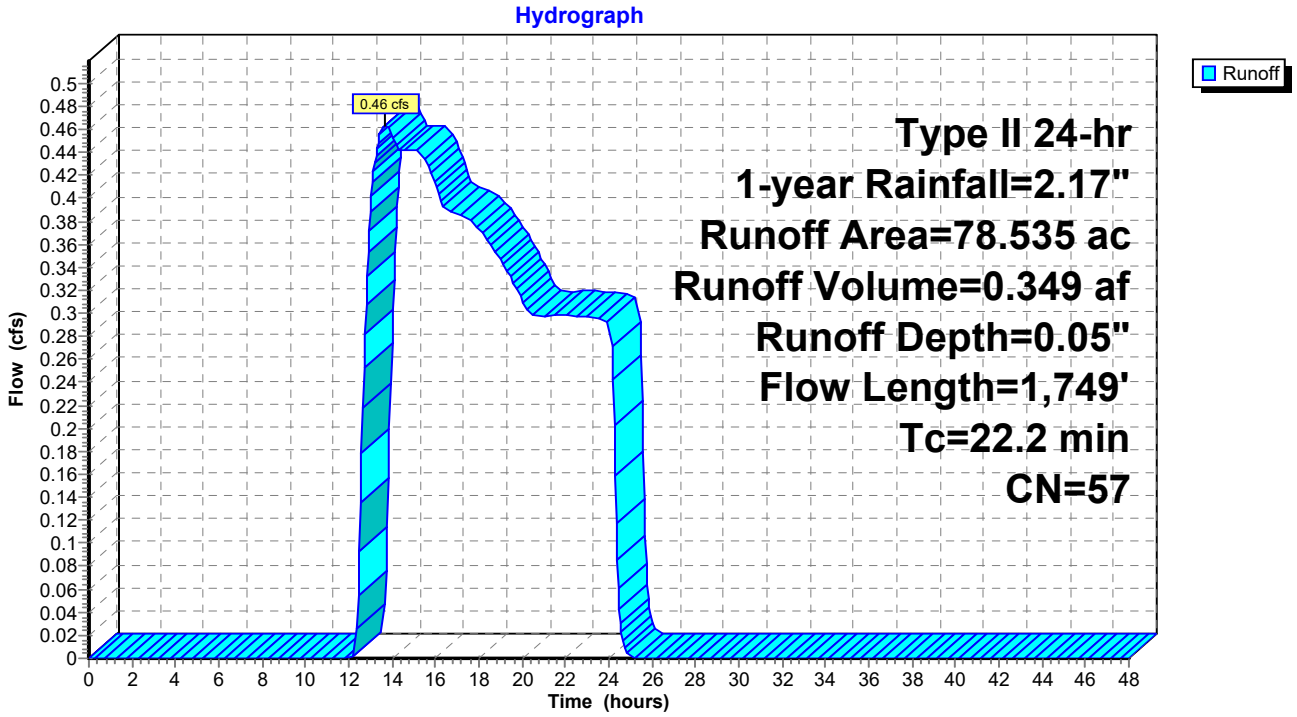
Runoff = 0.46 cfs @ 13.67 hrs, Volume= 0.349 af, Depth= 0.05"
Routed to Link SP34 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.383	48	Brush, Good, HSG B
0.083	96	Gravel surface, HSG D
0.438	98	Unconnected roofs, HSG D
45.013	58	Meadow, non-grazed, HSG B
0.353	71	Meadow, non-grazed, HSG C
0.171	78	Meadow, non-grazed, HSG D
3.827	61	>75% Grass cover, Good, HSG B
27.985	55	Woods, Good, HSG B
0.282	70	Woods, Good, HSG C
78.535	57	Weighted Average
78.097		99.44% Pervious Area
0.438		0.56% Impervious Area
0.438		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0350	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.8	780	0.1010	2.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	531	0.1059	2.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.6	338	0.1005	1.59		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.2	1,749	Total			

Subcatchment 33S: Sub 33



Summary for Subcatchment 34S: Sub 34

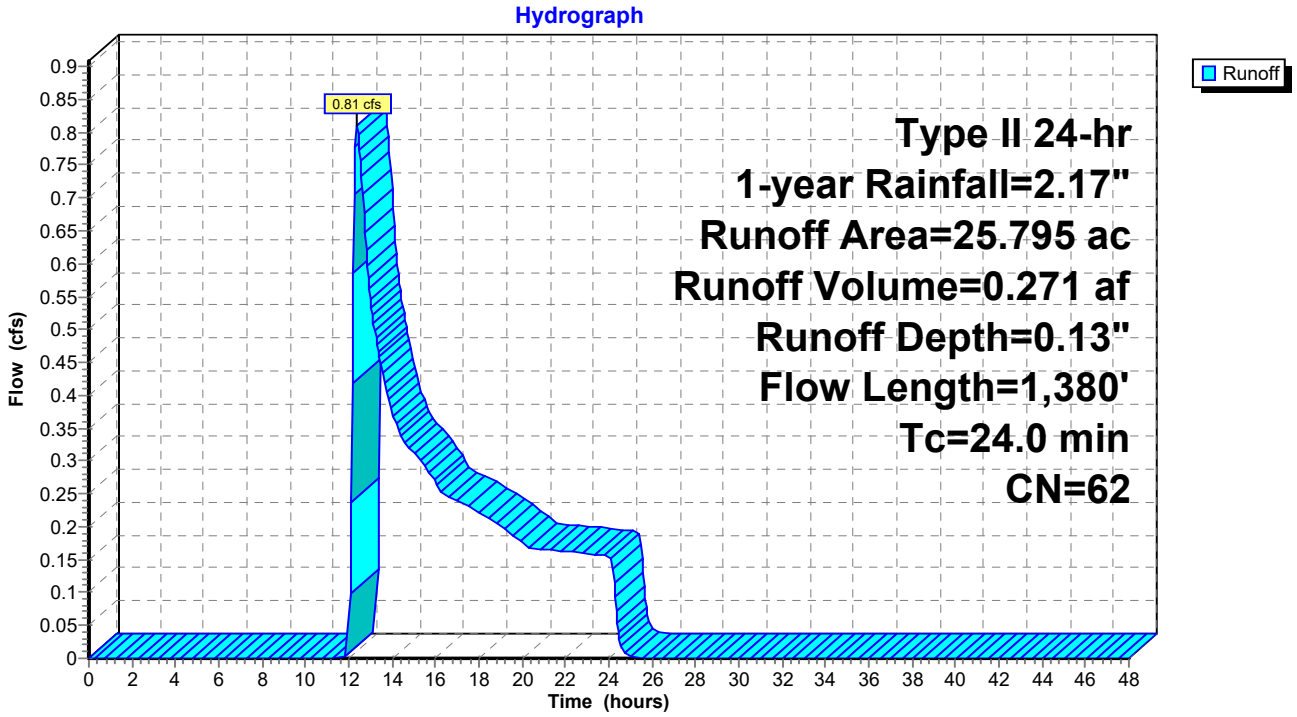
Runoff = 0.81 cfs @ 12.37 hrs, Volume= 0.271 af, Depth= 0.13"
Routed to Pond 34P : VAN EPPS RD CULVERT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.189	48	Brush, Good, HSG B
0.572	96	Gravel surface, HSG D
0.299	98	Unconnected roofs, HSG D
16.306	58	Meadow, non-grazed, HSG B
3.458	71	Meadow, non-grazed, HSG C
3.128	61	>75% Grass cover, Good, HSG B
1.486	74	>75% Grass cover, Good, HSG C
0.357	55	Woods, Good, HSG B
25.795	62	Weighted Average
25.496		98.84% Pervious Area
0.299		1.16% Impervious Area
0.299		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	100	0.0675	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
15.5	914	0.0198	0.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	42	0.0119	2.99	3.66	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.025 Corrugated metal
1.5	324	0.0552	3.52		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
24.0	1,380	Total			

Subcatchment 34S: Sub 34



Summary for Subcatchment 35S: Sub 35

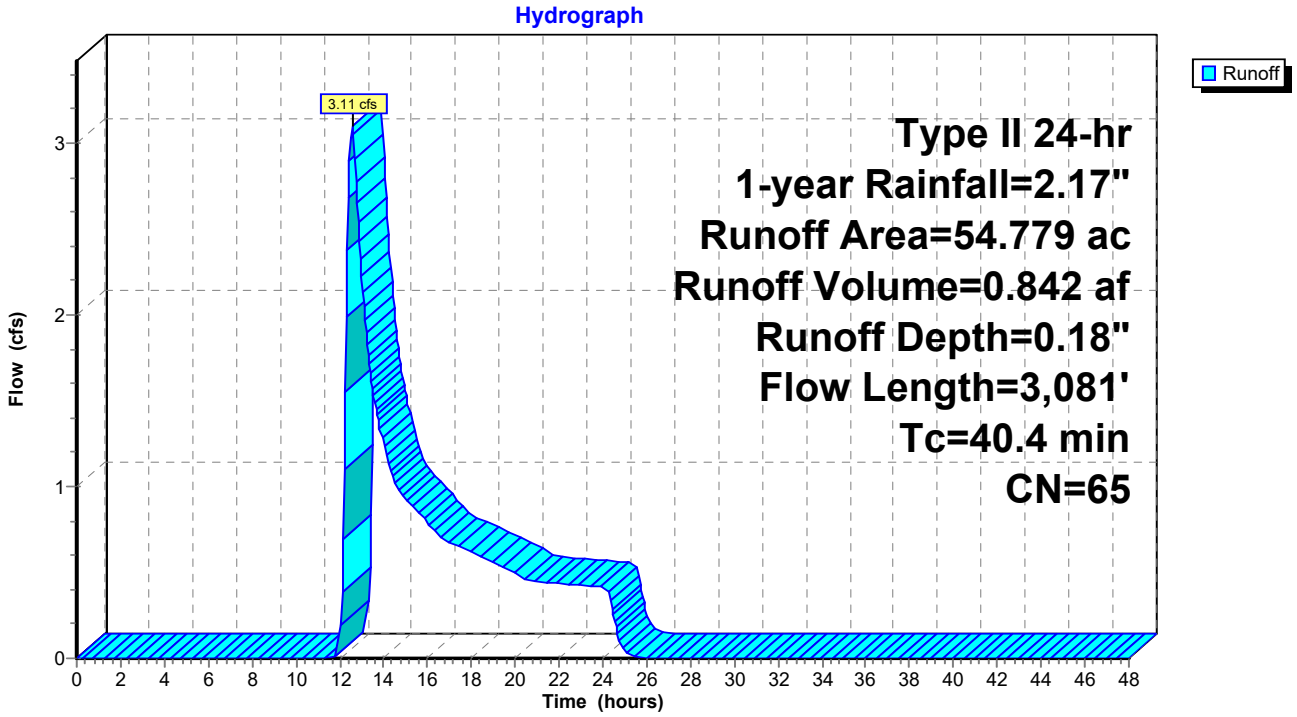
Runoff = 3.11 cfs @ 12.57 hrs, Volume= 0.842 af, Depth= 0.18"
Routed to Link SP35 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.105	48	Brush, Good, HSG B
0.087	65	Brush, Good, HSG C
1.101	98	Unconnected roofs, HSG D
24.009	58	Meadow, non-grazed, HSG B
23.901	71	Meadow, non-grazed, HSG C
0.319	61	>75% Grass cover, Good, HSG B
1.272	74	>75% Grass cover, Good, HSG C
1.962	55	Woods, Good, HSG B
1.488	70	Woods, Good, HSG C
0.535	96	Gravel surface, HSG D
54.779	65	Weighted Average
53.678		97.99% Pervious Area
1.101		2.01% Impervious Area
1.101		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.0440	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.6	393	0.0204	1.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.3	1,170	0.0510	1.58		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.3	272	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.1	435	0.0410	1.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	711	0.1030	3.93	7.86	**Parabolic Channel,** W=3.00' D=1.00' Area=2.0 sf Perim=3.7' n= 0.080 Earth, long dense weeds
40.4	3,081	Total			

Subcatchment 35S: Sub 35



Summary for Subcatchment 36S: Sub 36

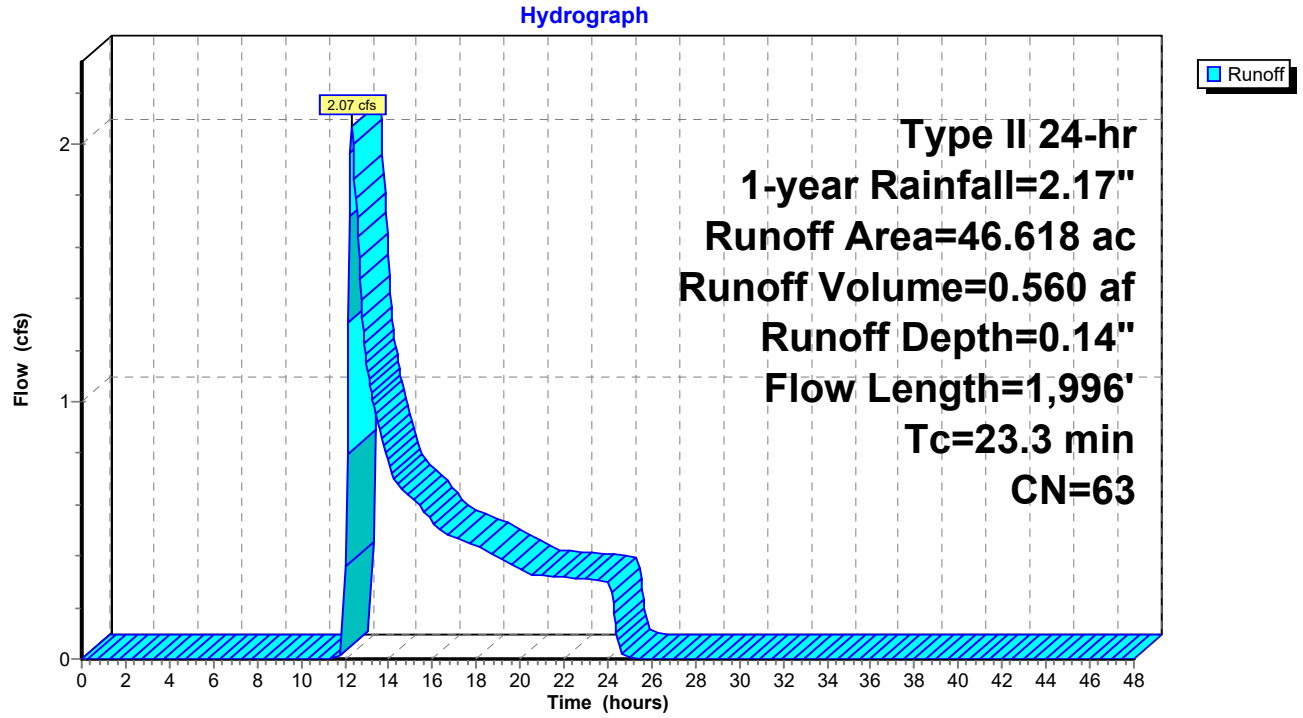
Runoff = 2.07 cfs @ 12.32 hrs, Volume= 0.560 af, Depth= 0.14"
Routed to Link SP36 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.319	96	Gravel surface, HSG D
3.277	58	Meadow, non-grazed, HSG B
21.346	71	Meadow, non-grazed, HSG C
21.676	55	Woods, Good, HSG B
46.618	63	Weighted Average
46.618		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.0550	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.7	1,036	0.0442	1.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.2	860	0.1400	3.38	5.91	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 3.0 '/' Top.W=5.00' n= 0.080 Earth, long dense weeds
23.3	1,996	Total			

Subcatchment 36S: Sub 36



Summary for Subcatchment 37S: Sub 37

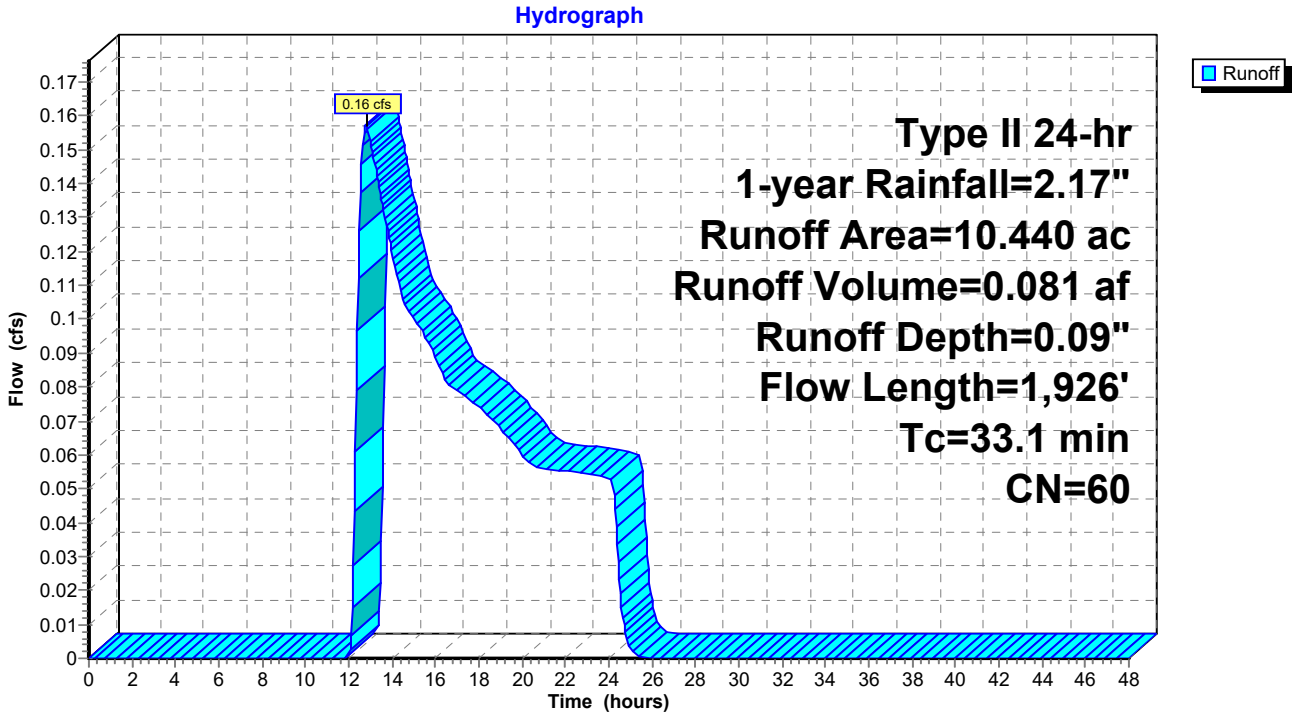
Runoff = 0.16 cfs @ 12.80 hrs, Volume= 0.081 af, Depth= 0.09"
Routed to Link SP37 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	8.161	58	Meadow, non-grazed, HSG B
	1.673	55	Woods, Good, HSG B
*	0.606	98	Impervious
	10.440	60	Weighted Average
	9.834		94.20% Pervious Area
	0.606		5.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0050	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.6	1,005	0.0507	1.58		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	90	0.0889	1.49		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.2	731	0.0570	5.59	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 3.0 '/' Top.W=9.00' n= 0.035 Earth, dense weeds
33.1	1,926	Total			

Subcatchment 37S: Sub 37



Summary for Subcatchment 38S: Sub 38

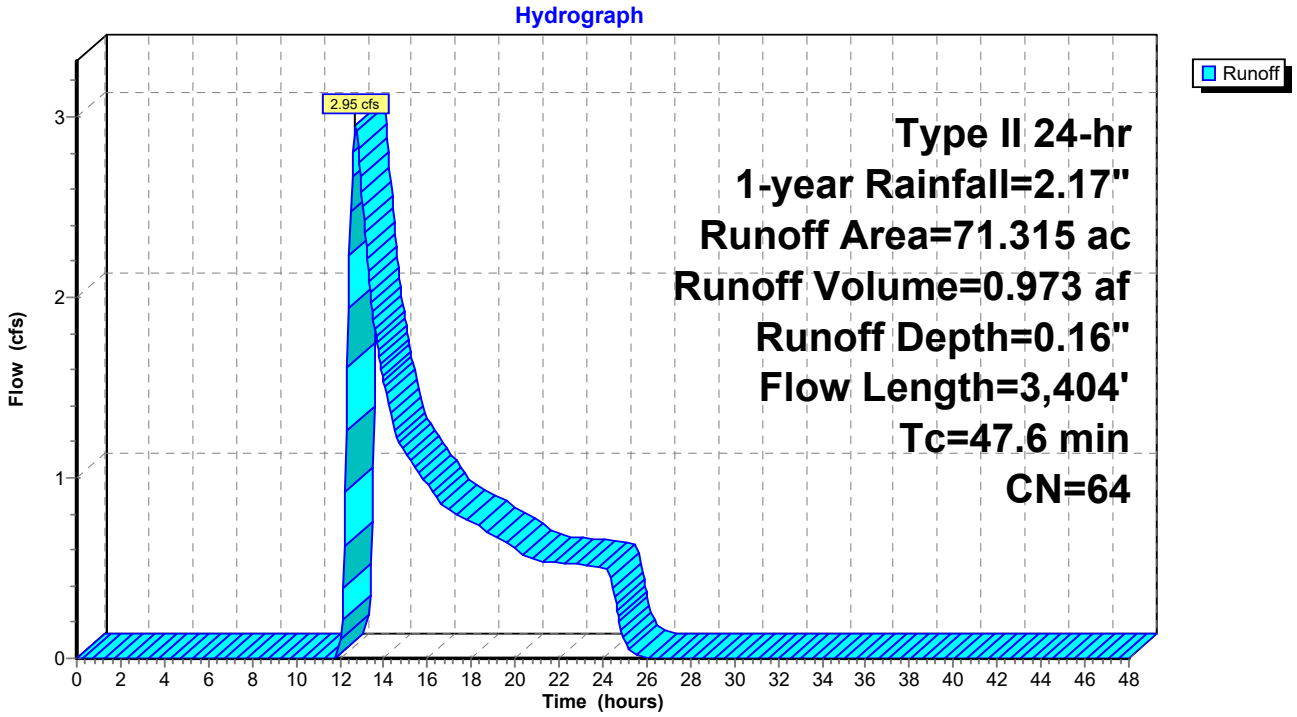
Runoff = 2.95 cfs @ 12.72 hrs, Volume= 0.973 af, Depth= 0.16"
Routed to Link SP38 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.437	96	Gravel surface, HSG D
0.789	98	Unconnected roofs, HSG D
29.694	58	Meadow, non-grazed, HSG B
36.187	71	Meadow, non-grazed, HSG C
3.907	30	Woods, Good, HSG A
0.301	55	Woods, Good, HSG B
71.315	64	Weighted Average
70.526		98.89% Pervious Area
0.789		1.11% Impervious Area
0.789		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.0500	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.9	739	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.6	753	0.0744	1.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.4	1,812	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
47.6	3,404	Total			

Subcatchment 38S: Sub 38



Summary for Subcatchment 39S: Sub 39

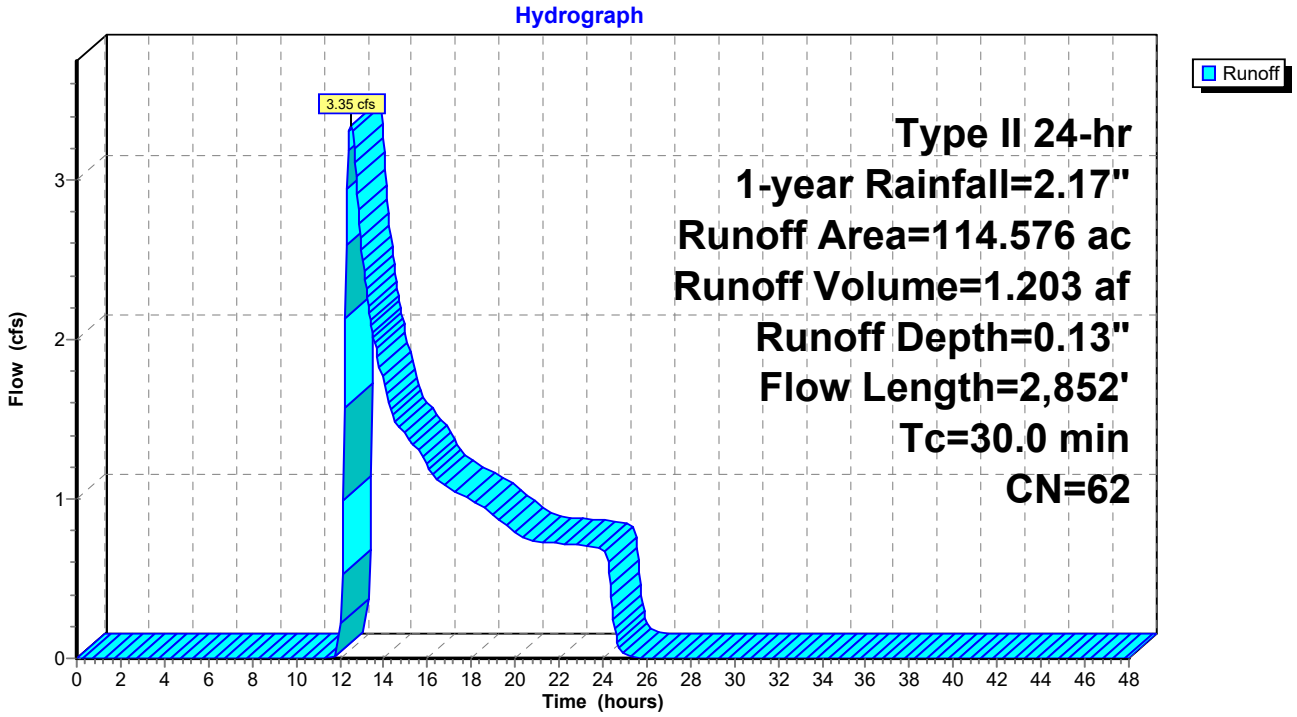
Runoff = 3.35 cfs @ 12.50 hrs, Volume= 1.203 af, Depth= 0.13"
Routed to Link SP39 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
2.544	96	Gravel surface, HSG D
0.425	98	Unconnected roofs, HSG D
71.899	58	Meadow, non-grazed, HSG B
22.397	71	Meadow, non-grazed, HSG C
2.604	78	Meadow, non-grazed, HSG D
0.132	98	Water Surface, HSG D
14.268	55	Woods, Good, HSG B
0.228	70	Woods, Good, HSG C
0.079	77	Woods, Good, HSG D
114.576	62	Weighted Average
114.019		99.51% Pervious Area
0.557		0.49% Impervious Area
0.425		76.30% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0600	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
17.7	2,151	0.0840	2.03		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.2	601	0.1490	1.93		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
30.0	2,852	Total			

Subcatchment 39S: Sub 39



Summary for Subcatchment 40S: Sub 40

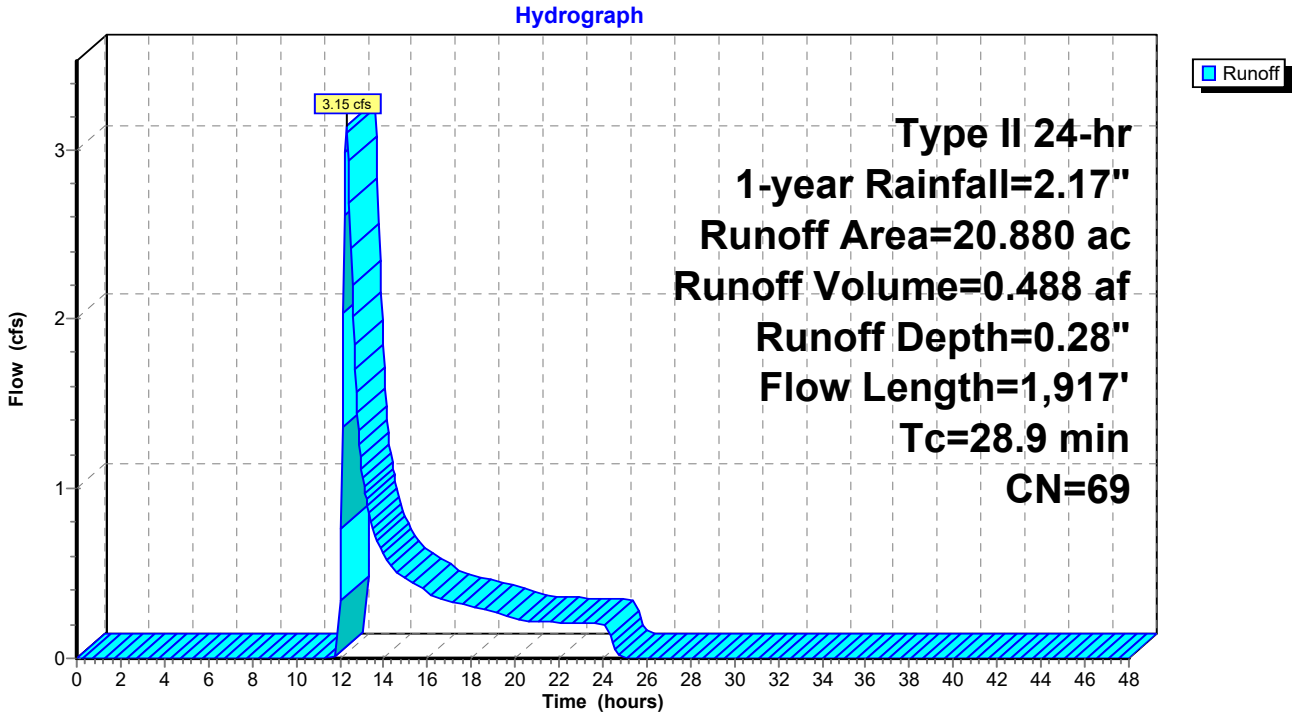
Runoff = 3.15 cfs @ 12.32 hrs, Volume= 0.488 af, Depth= 0.28"
Routed to Reach 39R :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.016	65	Brush, Good, HSG C
0.235	96	Gravel surface, HSG D
0.018	98	Unconnected roofs, HSG D
6.944	58	Meadow, non-grazed, HSG B
10.584	71	Meadow, non-grazed, HSG C
0.095	78	Meadow, non-grazed, HSG D
0.089	61	>75% Grass cover, Good, HSG B
1.640	98	Water Surface, HSG D
0.643	55	Woods, Good, HSG B
0.616	70	Woods, Good, HSG C
20.880	69	Weighted Average
19.222		92.06% Pervious Area
1.658		7.94% Impervious Area
0.018		1.09% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	100	0.0575	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.6	358	0.1089	2.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	38	0.1118	1.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.8	1,118	0.0733	1.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.8	303	0.0132	0.57		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.9	1,917	Total			

Subcatchment 40S: Sub 40



Summary for Subcatchment 41S: Sub 41

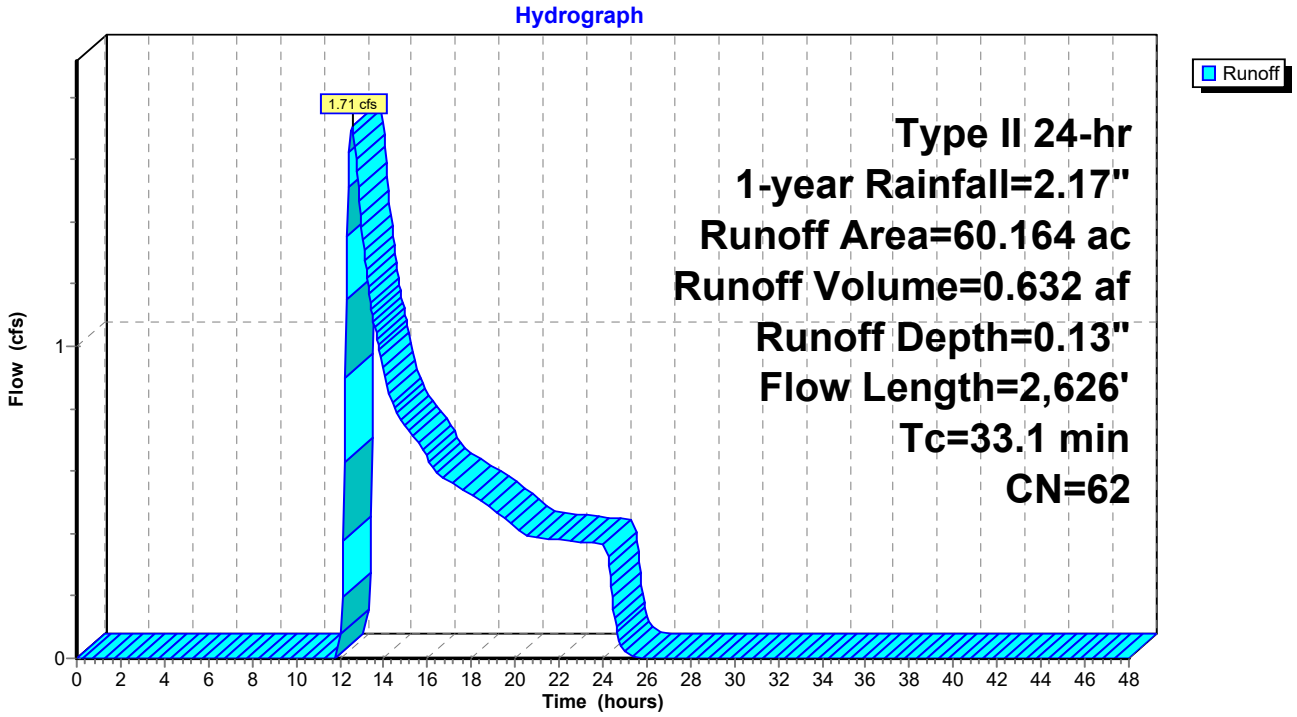
Runoff = 1.71 cfs @ 12.55 hrs, Volume= 0.632 af, Depth= 0.13"
Routed to Link SP41 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
21.630	58	Meadow, non-grazed, HSG B
8.822	71	Meadow, non-grazed, HSG C
2.302	78	Meadow, non-grazed, HSG D
17.906	55	Woods, Good, HSG B
9.226	70	Woods, Good, HSG C
0.278	96	Gravel surface, HSG D
60.164	62	Weighted Average
60.164		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.0	585	0.0765	1.94		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.8	652	0.0395	1.39		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.9	1,289	0.0436	3.13		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
33.1	2,626	Total			

Subcatchment 41S: Sub 41



Summary for Subcatchment 42.1S: 42.1P

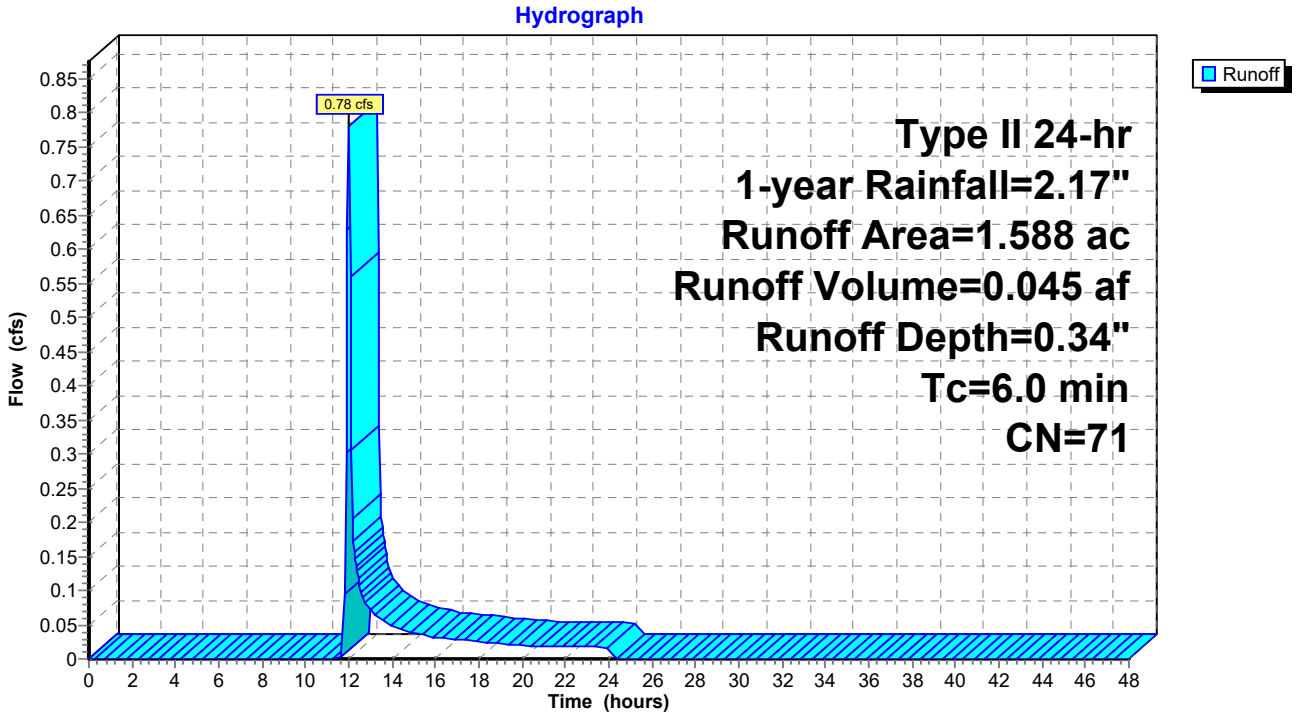
Runoff = 0.78 cfs @ 12.00 hrs, Volume= 0.045 af, Depth= 0.34"
Routed to Pond 42P : 42P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
1.588	71	Meadow, non-grazed, HSG C
1.588		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 42.1S: 42.1P



Summary for Subcatchment 42.2S: 42.2P

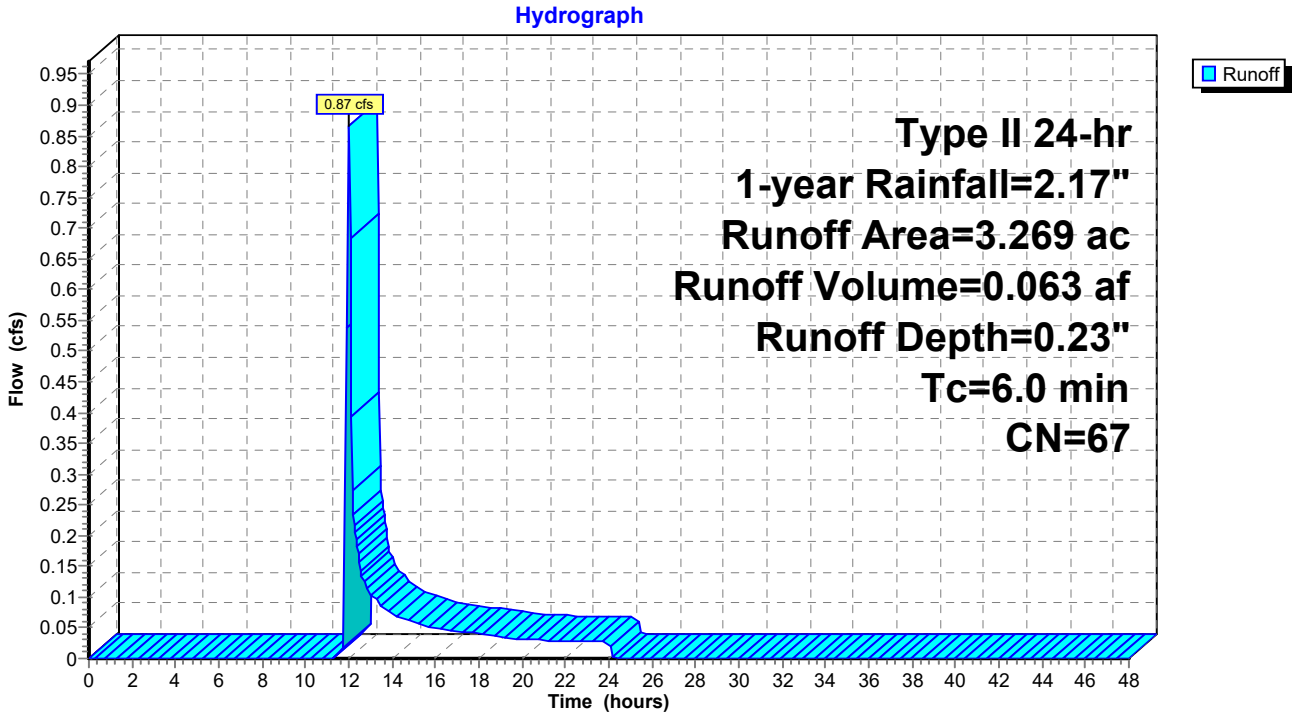
Runoff = 0.87 cfs @ 12.01 hrs, Volume= 0.063 af, Depth= 0.23"
Routed to Pond 42P : 42P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.922	58	Meadow, non-grazed, HSG B
2.347	71	Meadow, non-grazed, HSG C
3.269	67	Weighted Average
3.269		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 42.2S: 42.2P



Summary for Subcatchment 42S: Sub 42

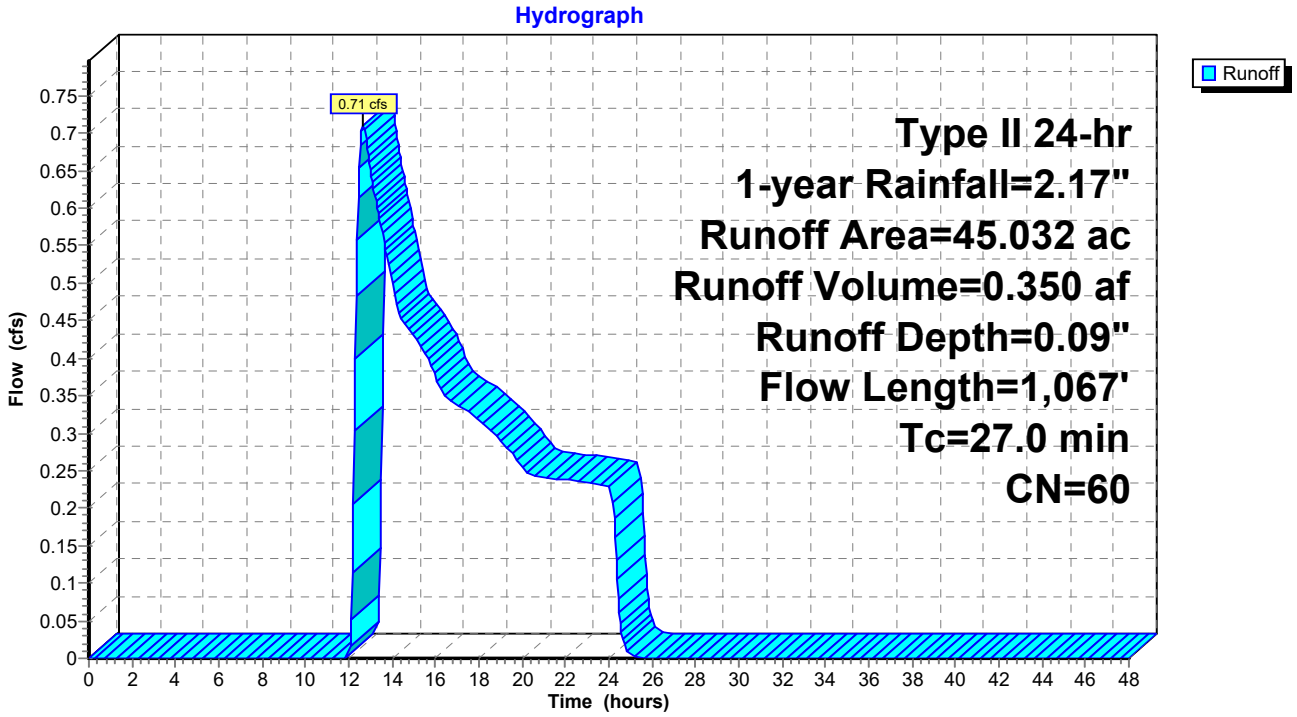
Runoff = 0.71 cfs @ 12.67 hrs, Volume= 0.350 af, Depth= 0.09"
Routed to Link SP42 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
8.572	58	Meadow, non-grazed, HSG B
11.283	71	Meadow, non-grazed, HSG C
23.485	55	Woods, Good, HSG B
1.193	70	Woods, Good, HSG C
0.499	96	Gravel surface, HSG D
45.032	60	Weighted Average
45.032		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.0	140	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	252	0.0080	0.63		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.4	103	0.0290	1.19		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	472	0.2000	2.24		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
27.0	1,067	Total			

Subcatchment 42S: Sub 42



Summary for Subcatchment 48S: Sub 48

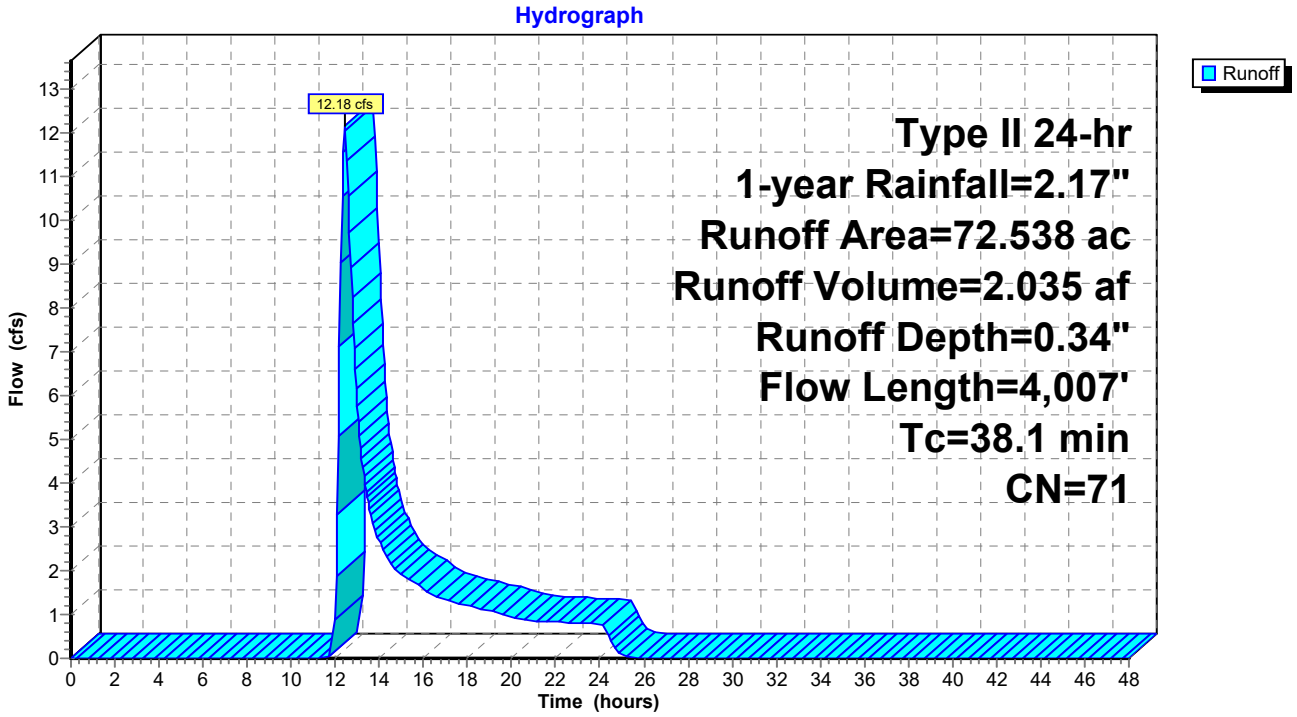
Runoff = 12.18 cfs @ 12.43 hrs, Volume= 2.035 af, Depth= 0.34"
Routed to Link SP48 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	3.557	48	Brush, Good, HSG B
	14.091	65	Brush, Good, HSG C
	7.459	73	Brush, Good, HSG D
*	0.649	96	Gravel surface
*	1.258	98	Impervious Roof and Pavement
	2.103	58	Meadow, non-grazed, HSG B
	26.750	71	Meadow, non-grazed, HSG C
	13.236	78	Meadow, non-grazed, HSG D
	0.333	61	>75% Grass cover, Good, HSG B
	0.615	74	>75% Grass cover, Good, HSG C
	0.563	80	>75% Grass cover, Good, HSG D
	0.543	98	Water Surface, HSG D
	0.355	55	Woods, Good, HSG B
	0.418	70	Woods, Good, HSG C
	0.608	77	Woods, Good, HSG D
	72.538	71	Weighted Average
	70.737		97.52% Pervious Area
	1.801		2.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.0625	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
22.2	1,935	0.0430	1.45		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	1,972	0.0230	3.68	19.31	**Trap/Vee/Rect Channel Flow,** Bot.W=9.00' D=0.50' Z= 3.0 '/' Top.W=12.00' n= 0.035 Earth, dense weeds
38.1	4,007	Total			

Subcatchment 48S: Sub 48



Summary for Subcatchment 49.1S: Sub 49.1

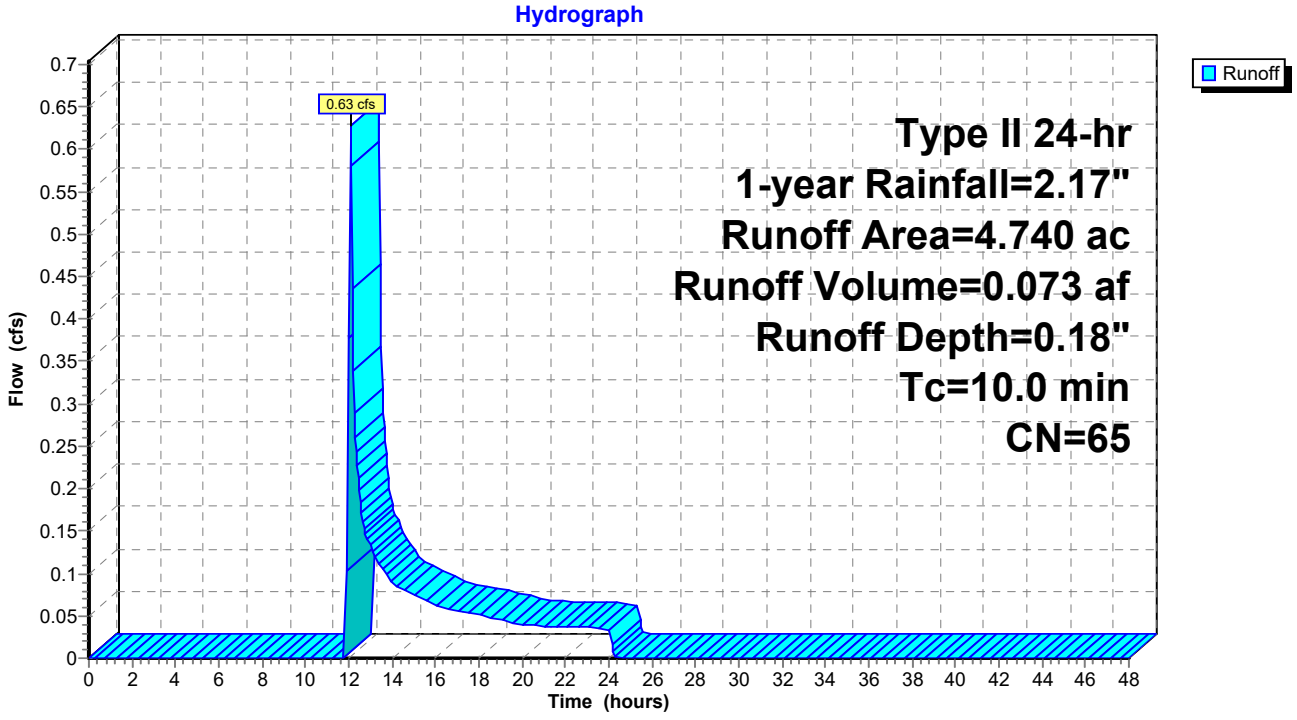
Runoff = 0.63 cfs @ 12.07 hrs, Volume= 0.073 af, Depth= 0.18"
Routed to Pond 49.1P : 49.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	0.971	71	Meadow, non-grazed, HSG C
	1.992	58	Meadow, non-grazed, HSG B
*	0.322	98	Impervious
	0.157	70	Woods, Good, HSG C
	0.095	65	Brush, Good, HSG C
	0.171	48	Brush, Good, HSG B
	0.853	61	>75% Grass cover, Good, HSG B
	0.079	74	>75% Grass cover, Good, HSG C
*	0.100	96	Gravel
	4.740	65	Weighted Average
	4.418		93.21% Pervious Area
	0.322		6.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 49.1S: Sub 49.1



Summary for Subcatchment 49.2S: 49.2S

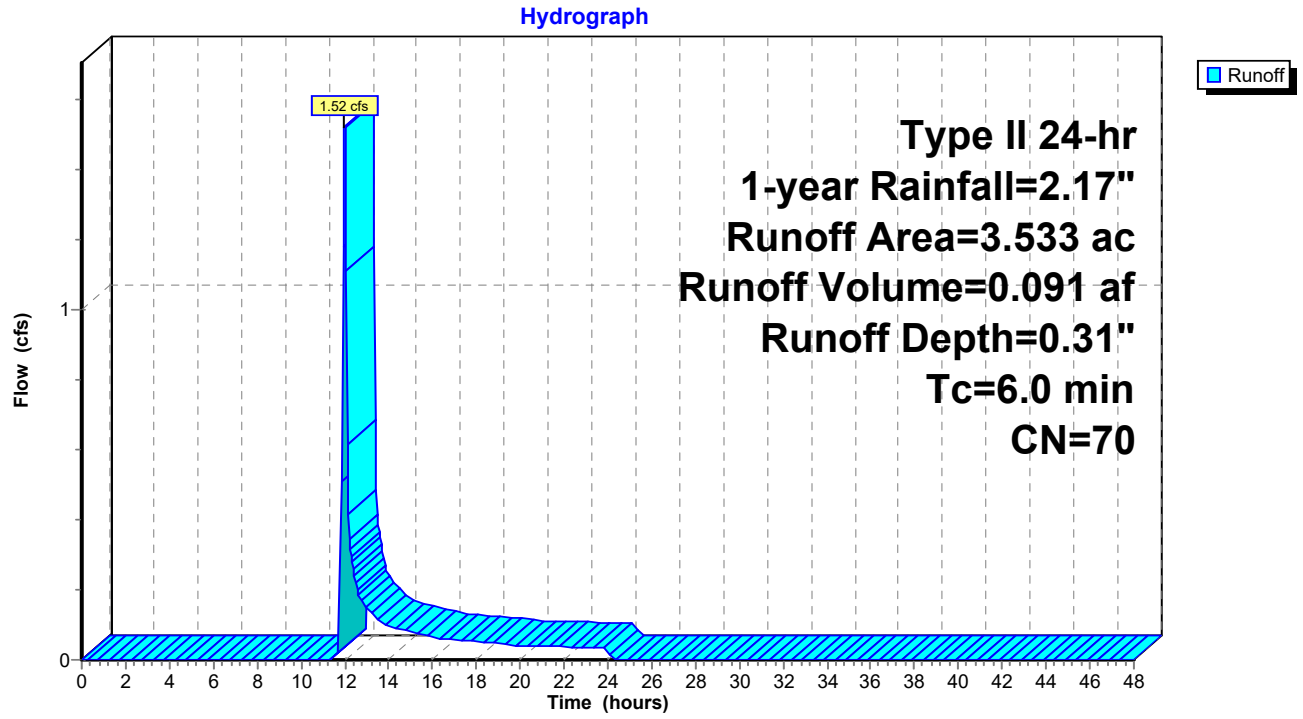
Runoff = 1.52 cfs @ 12.00 hrs, Volume= 0.091 af, Depth= 0.31"
Routed to Pond 49.2P : 49.2S

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	0.083	61	>75% Grass cover, Good, HSG B
	0.181	58	Meadow, non-grazed, HSG B
	3.264	71	Meadow, non-grazed, HSG C
*	0.005	98	Impervious roof
	3.533	70	Weighted Average
	3.528		99.86% Pervious Area
	0.005		0.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 49.2S: 49.2S



Summary for Subcatchment 49S: Sub 49

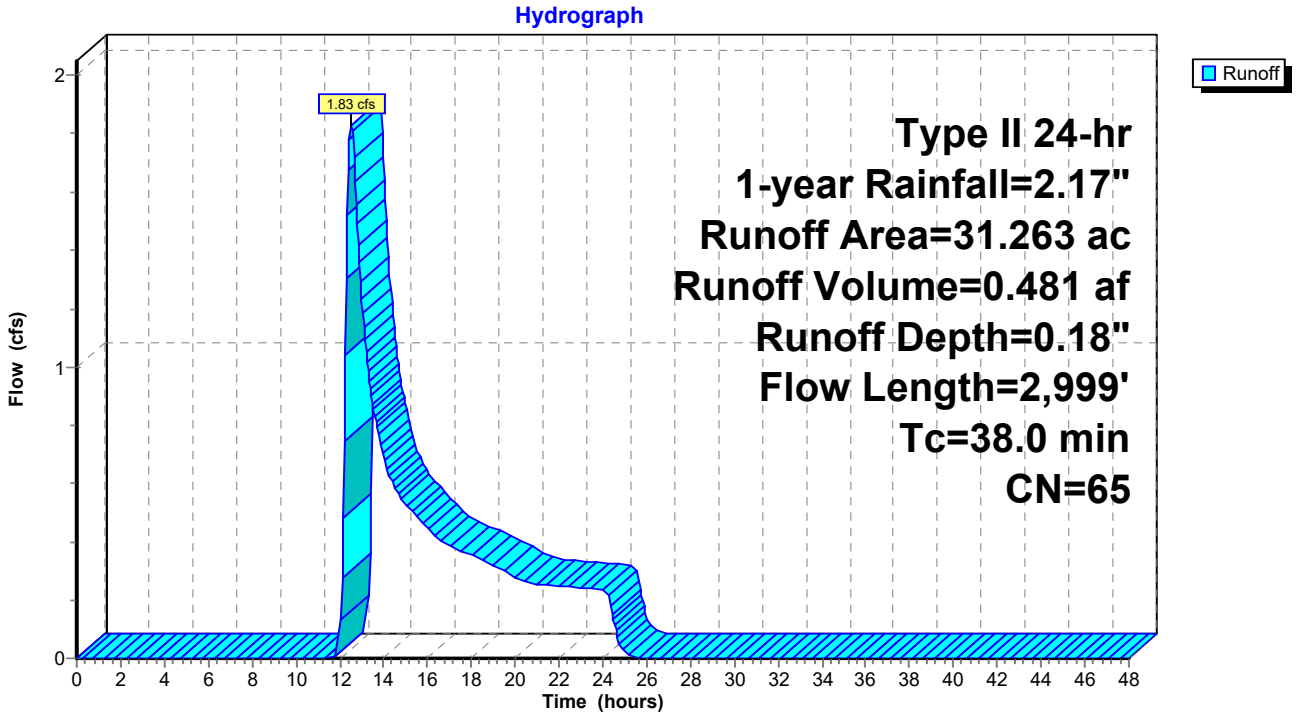
Runoff = 1.83 cfs @ 12.53 hrs, Volume= 0.481 af, Depth= 0.18"
Routed to Reach 42R : S-NSD-16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	1.236	48	Brush, Good, HSG B
	1.046	65	Brush, Good, HSG C
	0.025	73	Brush, Good, HSG D
	0.628	96	Gravel surface, HSG D
*	0.165	98	Impervious
	13.632	58	Meadow, non-grazed, HSG B
	9.560	71	Meadow, non-grazed, HSG C
	2.736	78	Meadow, non-grazed, HSG D
	0.807	61	>75% Grass cover, Good, HSG B
	0.303	74	>75% Grass cover, Good, HSG C
	0.029	98	Water Surface, HSG D
	0.093	55	Woods, Good, HSG B
	0.788	70	Woods, Good, HSG C
	0.215	77	Woods, Good, HSG D
	31.263	65	Weighted Average
	31.069		99.38% Pervious Area
	0.194		0.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0610	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.5	240	0.1520	2.73		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	534	0.1367	2.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	168	0.0506	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.2	561	0.0267	1.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.0	1,396	0.0434	1.46		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
38.0	2,999	Total			

Subcatchment 49S: Sub 49



Summary for Subcatchment 50S: Sub 50

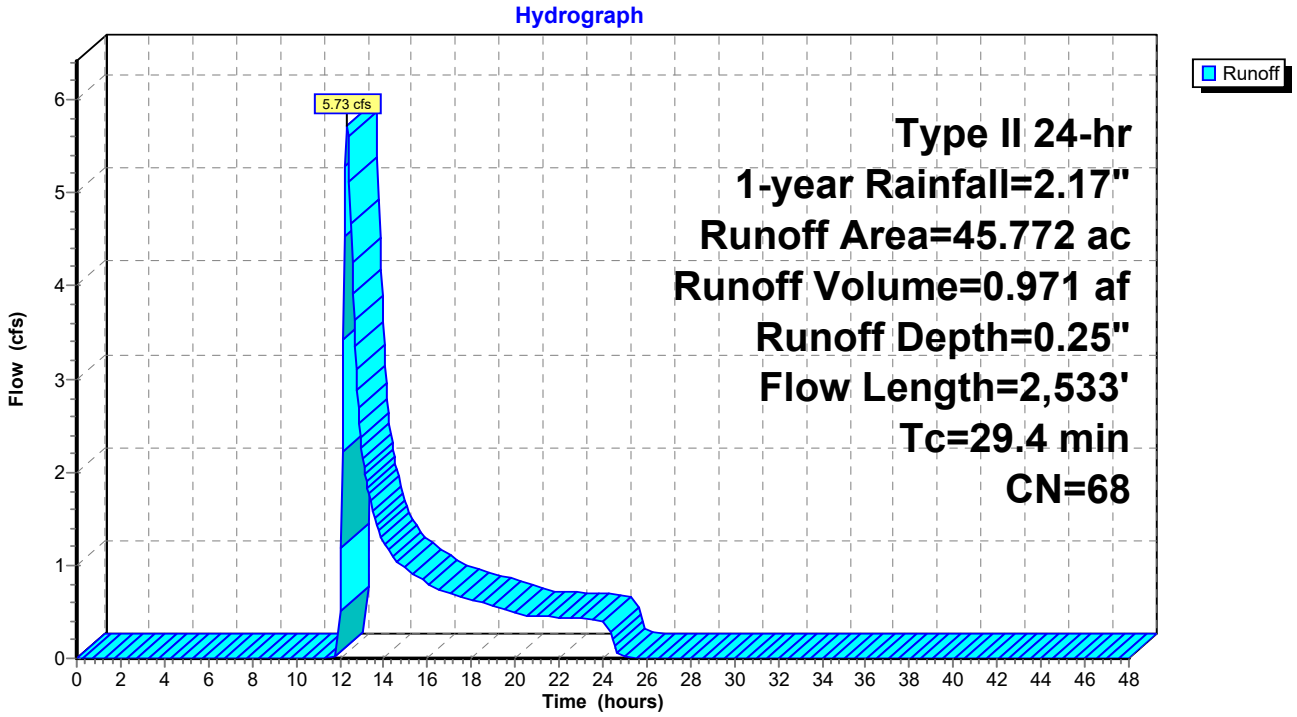
Runoff = 5.73 cfs @ 12.33 hrs, Volume= 0.971 af, Depth= 0.25"
Routed to Link SP50 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.310	48	Brush, Good, HSG B
3.453	65	Brush, Good, HSG C
0.153	73	Brush, Good, HSG D
0.163	98	Unconnected roofs, HSG D
3.338	58	Meadow, non-grazed, HSG B
23.963	71	Meadow, non-grazed, HSG C
2.608	78	Meadow, non-grazed, HSG D
0.409	98	Water Surface, HSG D
5.668	55	Woods, Good, HSG B
5.262	70	Woods, Good, HSG C
0.445	96	Gravel surface, HSG D
45.772	68	Weighted Average
45.200		98.75% Pervious Area
0.572		1.25% Impervious Area
0.163		28.50% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0350	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
8.1	911	0.0710	1.87		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.5	410	0.0330	0.91		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.9	1,112	0.0320	3.80	5.70	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
29.4	2,533	Total			

Subcatchment 50S: Sub 50



Summary for Subcatchment 51.1S: 51.1S

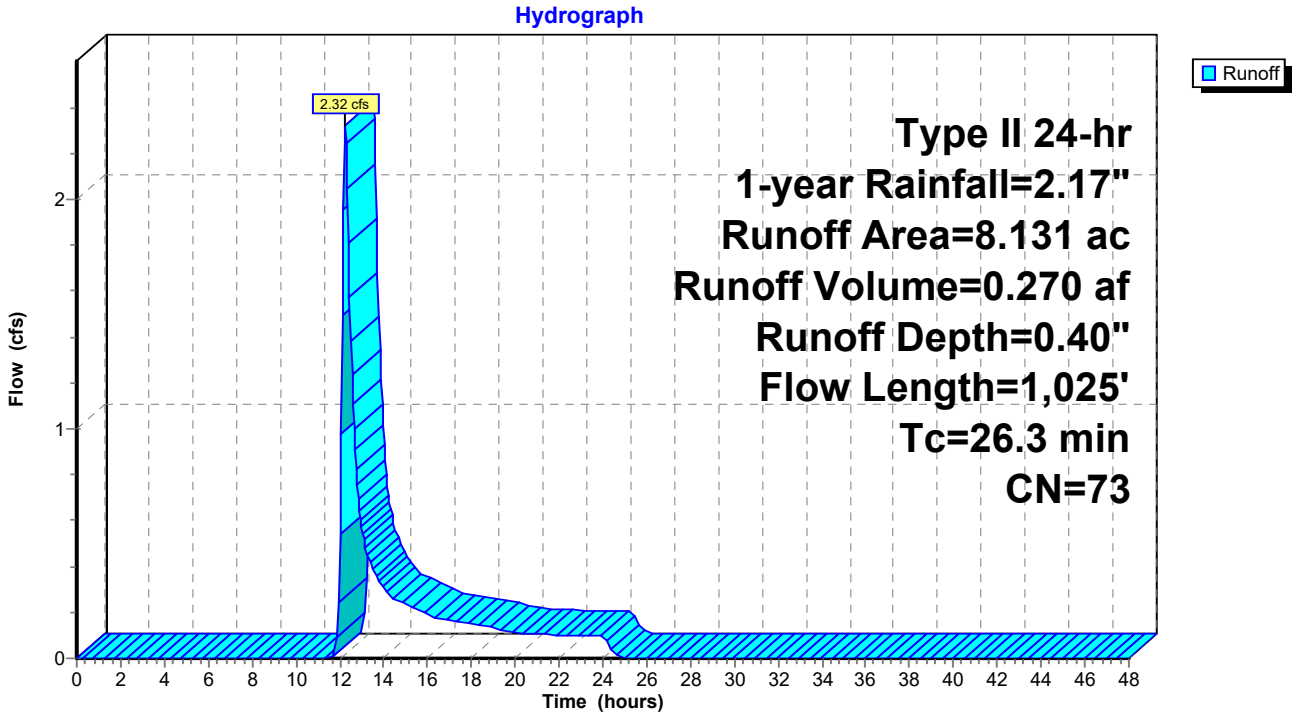
Runoff = 2.32 cfs @ 12.25 hrs, Volume= 0.270 af, Depth= 0.40"
Routed to Pond 51.1P : 51.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
5.714	71	Meadow, non-grazed, HSG C
0.046	70	Woods, Good, HSG C
0.397	74	>75% Grass cover, Good, HSG C
0.096	65	Brush, Good, HSG C
0.109	73	Brush, Good, HSG D
1.769	78	Meadow, non-grazed, HSG D
8.131	73	Weighted Average
8.131		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0070	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.4	334	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	591	0.1250	2.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
26.3	1,025	Total			

Subcatchment 51.1S: 51.1S



Summary for Subcatchment 51S: Sub 51

Runoff = 4.28 cfs @ 12.61 hrs, Volume= 1.304 af, Depth= 0.16"
Routed to Link SP51 :

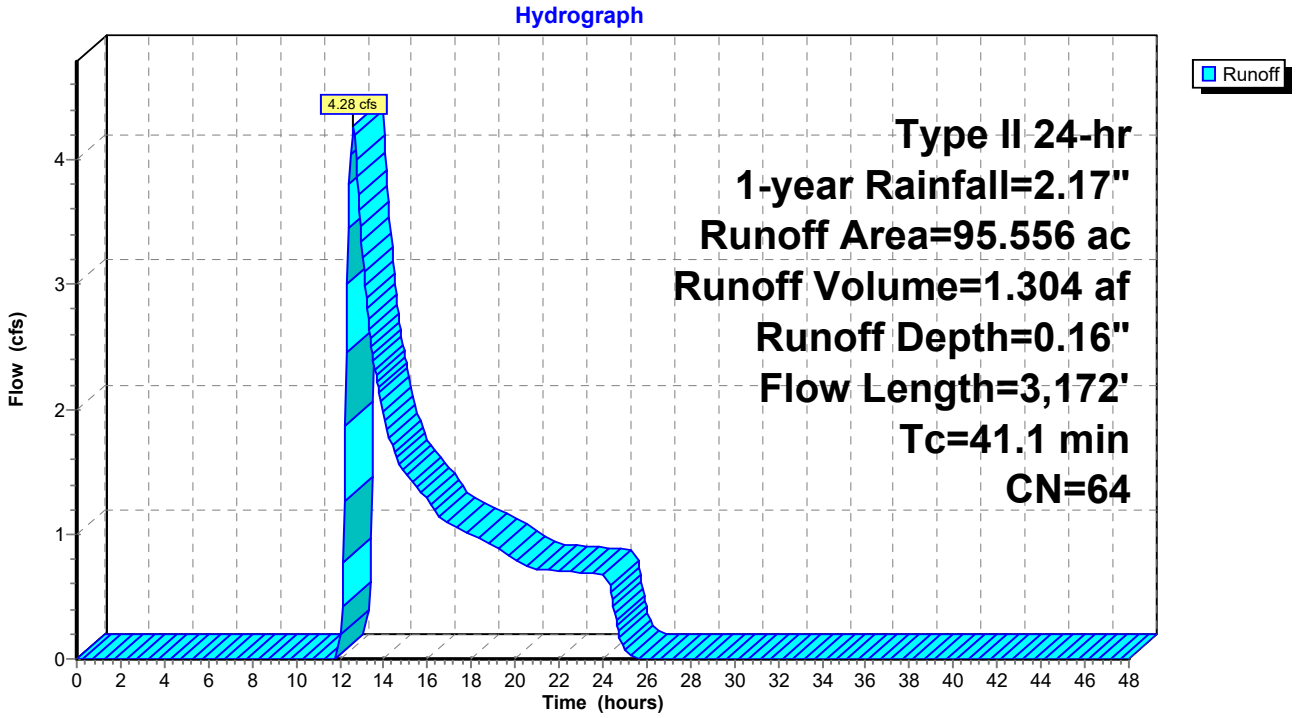
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.877	48	Brush, Good, HSG B
0.779	65	Brush, Good, HSG C
0.113	73	Brush, Good, HSG D
2.071	96	Gravel surface, HSG D
0.729	98	Unconnected roofs, HSG D
48.224	58	Meadow, non-grazed, HSG B
33.849	71	Meadow, non-grazed, HSG C
0.806	78	Meadow, non-grazed, HSG D
2.719	61	>75% Grass cover, Good, HSG B
0.732	74	>75% Grass cover, Good, HSG C
1.610	55	Woods, Good, HSG B
2.912	70	Woods, Good, HSG C
0.135	77	Woods, Good, HSG D
95.556	64	Weighted Average
94.827		99.24% Pervious Area
0.729		0.76% Impervious Area
0.729		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.7	108	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.4	513	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.3	1,142	0.0860	2.05		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.0	543	0.0460	1.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	34	0.0580	12.68	15.56	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	162	0.0250	1.11		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	34	0.0580	12.68	15.56	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
5.3	392	0.0310	1.23		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	144	0.0420	1.02		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps

41.1 3,172 Total

Subcatchment 51S: Sub 51



Summary for Subcatchment 52.1S: 52.1S

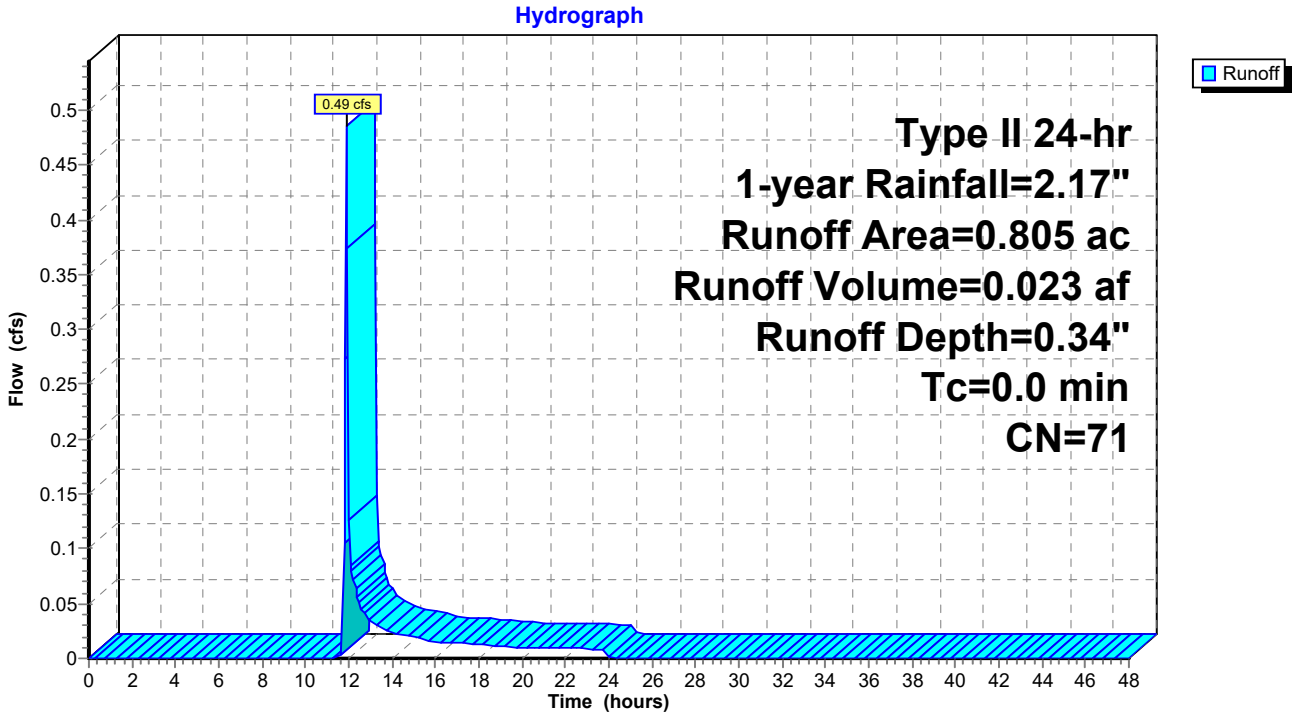
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.49 cfs @ 11.91 hrs, Volume= 0.023 af, Depth= 0.34"
Routed to Pond 52.1P : 52.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.805	71	Meadow, non-grazed, HSG C
0.805		100.00% Pervious Area

Subcatchment 52.1S: 52.1S



Summary for Subcatchment 52S: Sub 52

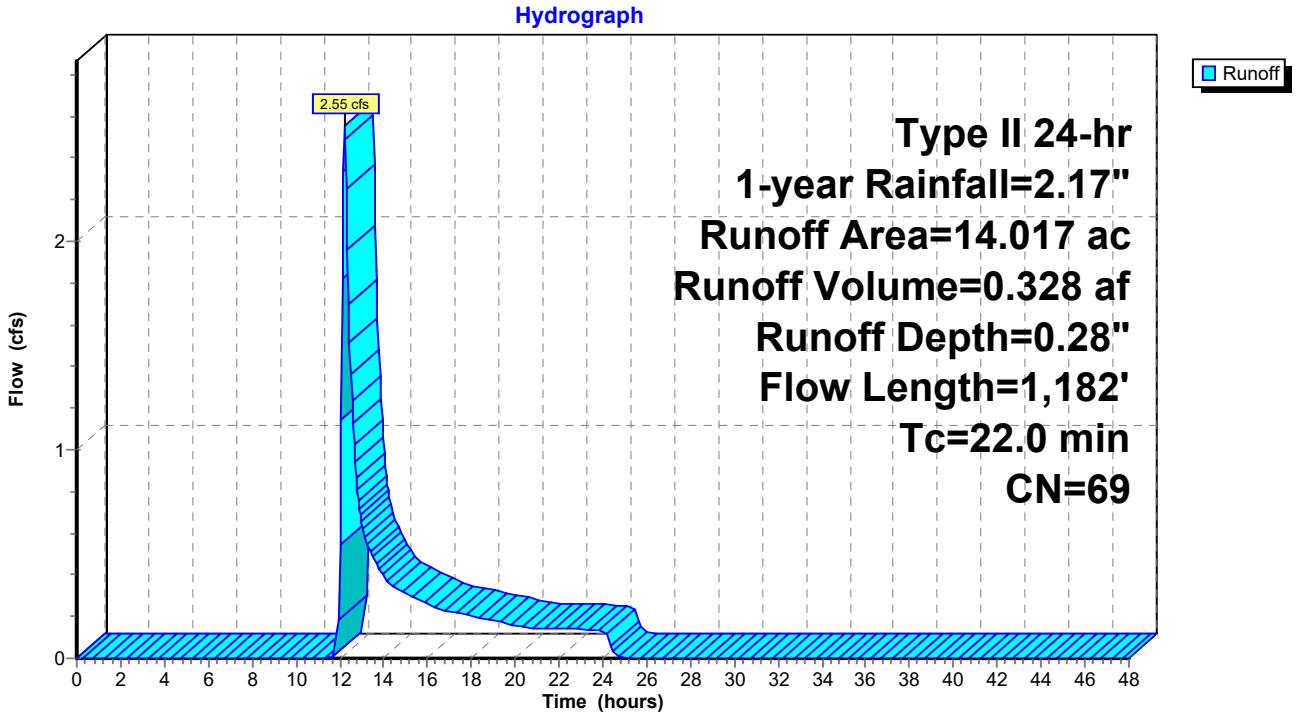
Runoff = 2.55 cfs @ 12.21 hrs, Volume= 0.328 af, Depth= 0.28"
Routed to Link SP52 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.561	48	Brush, Good, HSG B
0.166	73	Brush, Good, HSG D
1.696	58	Meadow, non-grazed, HSG B
9.328	71	Meadow, non-grazed, HSG C
0.646	78	Meadow, non-grazed, HSG D
0.413	98	Water Surface, HSG D
0.321	55	Woods, Good, HSG B
0.736	70	Woods, Good, HSG C
0.150	96	Gravel surface, HSG D
14.017	69	Weighted Average
13.604		97.05% Pervious Area
0.413		2.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
8.1	993	0.0850	2.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	89	0.0112	0.53		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.0	1,182	Total			

Subcatchment 52S: Sub 52



Summary for Subcatchment 53S: Sub 53

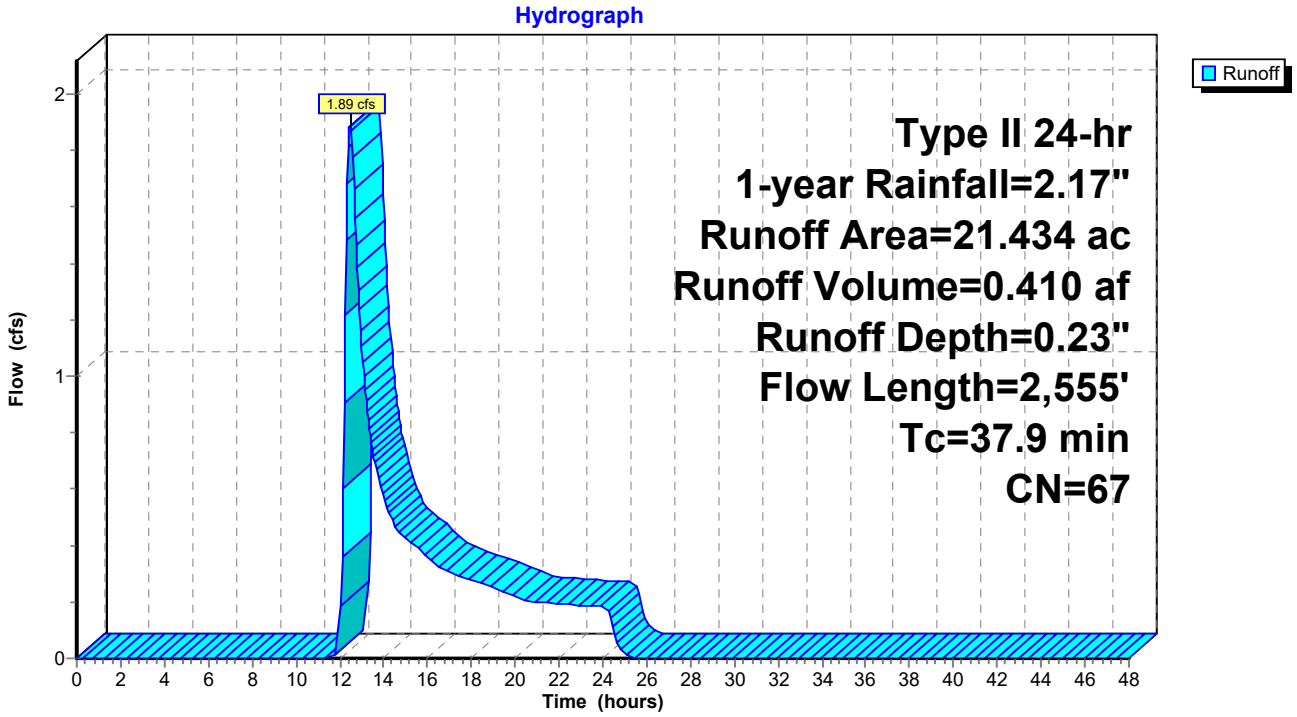
Runoff = 1.89 cfs @ 12.48 hrs, Volume= 0.410 af, Depth= 0.23"
Routed to Link SP53 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
1.579	48	Brush, Good, HSG B
0.985	65	Brush, Good, HSG C
4.027	58	Meadow, non-grazed, HSG B
13.862	71	Meadow, non-grazed, HSG C
0.386	98	Water Surface, HSG D
0.250	70	Woods, Good, HSG C
0.345	96	Gravel surface, HSG D
21.434	67	Weighted Average
21.048		98.20% Pervious Area
0.386		1.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.4	347	0.1210	2.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	151	0.1656	2.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
19.3	1,511	0.0347	1.30		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.7	446	0.2690	11.02	16.53	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
37.9	2,555	Total			

Subcatchment 53S: Sub 53



Summary for Subcatchment 54S: Sub 54

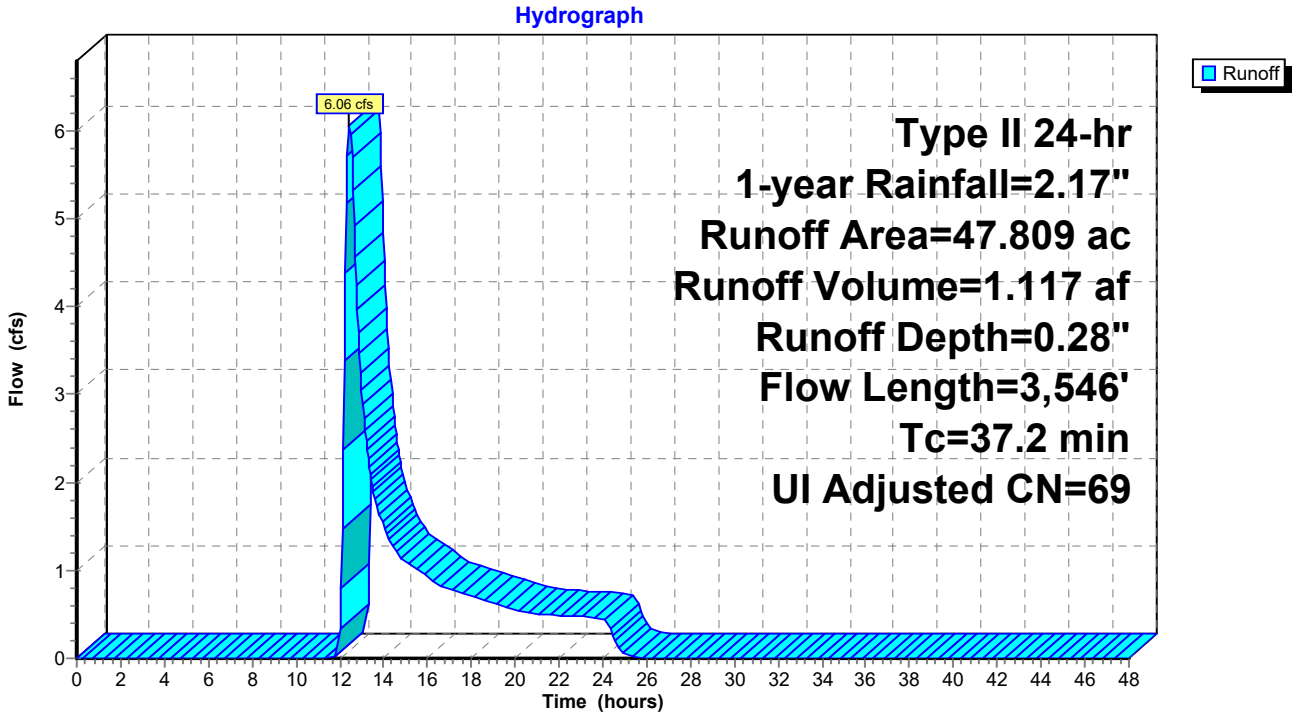
Runoff = 6.06 cfs @ 12.45 hrs, Volume= 1.117 af, Depth= 0.28"
Routed to Link SP54 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Adj	Description
2.214	48		Brush, Good, HSG B
4.952	65		Brush, Good, HSG C
2.646	98		Unconnected roofs, HSG D
5.345	58		Meadow, non-grazed, HSG B
23.606	71		Meadow, non-grazed, HSG C
2.360	61		>75% Grass cover, Good, HSG B
5.016	74		>75% Grass cover, Good, HSG C
1.095	98		Water Surface, HSG D
0.017	55		Woods, Good, HSG B
0.558	96		Gravel surface, HSG D
47.809	70	69	Weighted Average, UI Adjusted
44.068			92.18% Pervious Area
3.741			7.82% Impervious Area
2.646			70.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.0500	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.2	964	0.0420	1.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	166	0.0420	1.02		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	321	0.0312	2.84		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
13.7	1,995	0.0253	2.42	8.07	**Parabolic Channel,** W=5.00' D=1.00' Area=3.3 sf Perim=5.5' n= 0.070 Sluggish weedy reaches w/pools
37.2	3,546	Total			

Subcatchment 54S: Sub 54



Summary for Subcatchment 55S: Sub 55

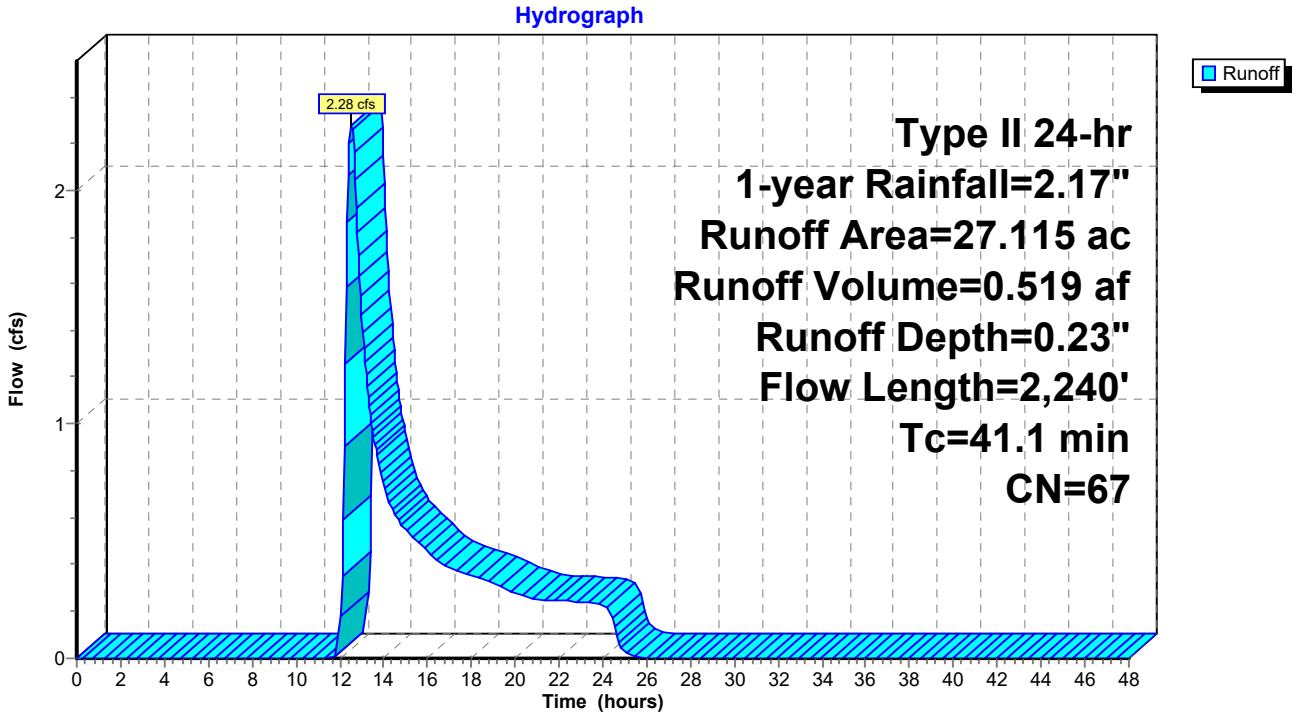
Runoff = 2.28 cfs @ 12.54 hrs, Volume= 0.519 af, Depth= 0.23"
Routed to Link SP55 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.417	48	Brush, Good, HSG B
0.206	65	Brush, Good, HSG C
0.193	98	Unconnected roofs, HSG D
9.181	58	Meadow, non-grazed, HSG B
16.245	71	Meadow, non-grazed, HSG C
0.190	55	Woods, Good, HSG B
0.236	70	Woods, Good, HSG C
0.447	96	Gravel surface, HSG D
27.115	67	Weighted Average
26.922		99.29% Pervious Area
0.193		0.71% Impervious Area
0.193		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.2	289	0.0970	2.18		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.4	730	0.0340	1.29		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.6	647	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	474	0.0527	3.39	9.05	**Parabolic Channel,** W=4.00' D=1.00' Area=2.7 sf Perim=4.6' n= 0.070 Sluggish weedy reaches w/pools
41.1	2,240	Total			

Subcatchment 55S: Sub 55



Summary for Subcatchment 56.1S: 56.1S

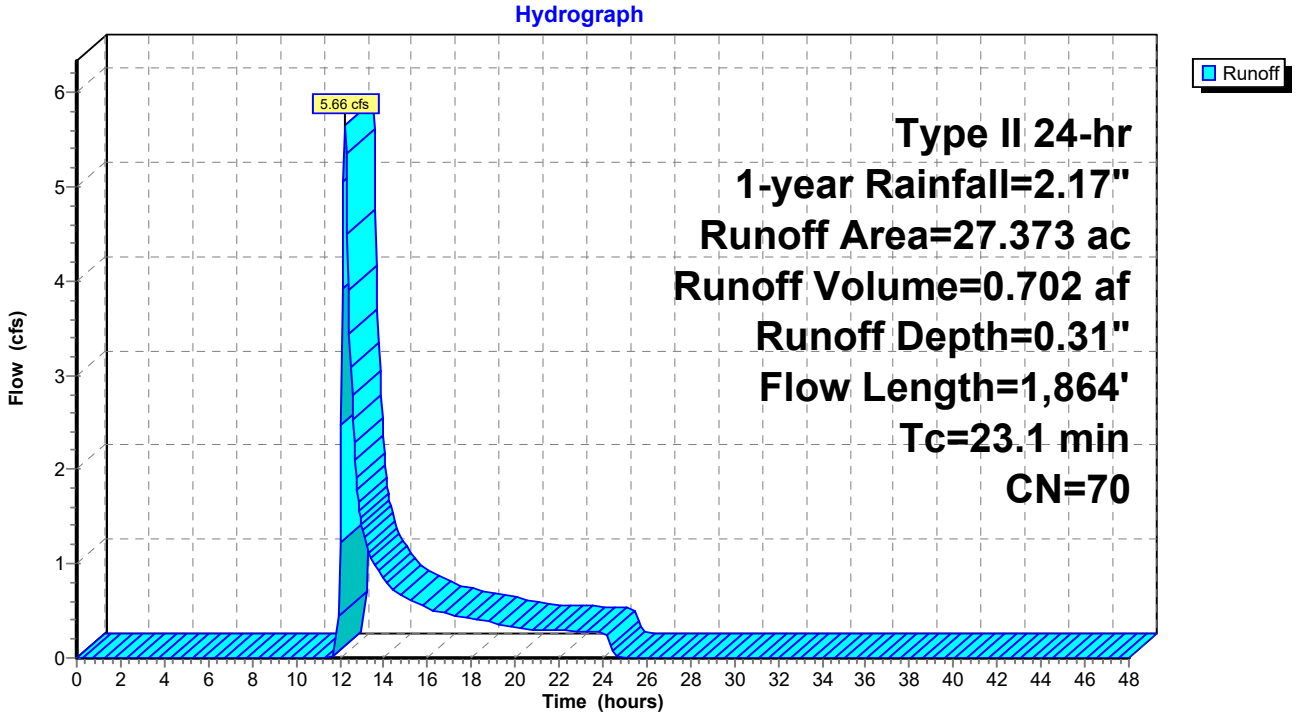
Runoff = 5.66 cfs @ 12.22 hrs, Volume= 0.702 af, Depth= 0.31"
Routed to Pond 56.1P : 56.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

	Area (ac)	CN	Description
	3.169	58	Meadow, non-grazed, HSG B
*	0.806	96	Gravel
	23.398	71	Meadow, non-grazed, HSG C
	27.373	70	Weighted Average
	27.373		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
7.7	1,108	0.1160	2.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.0	656	0.0670	1.81		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
23.1	1,864	Total			

Subcatchment 56.1S: 56.1S



Summary for Subcatchment 56S: Sub 56

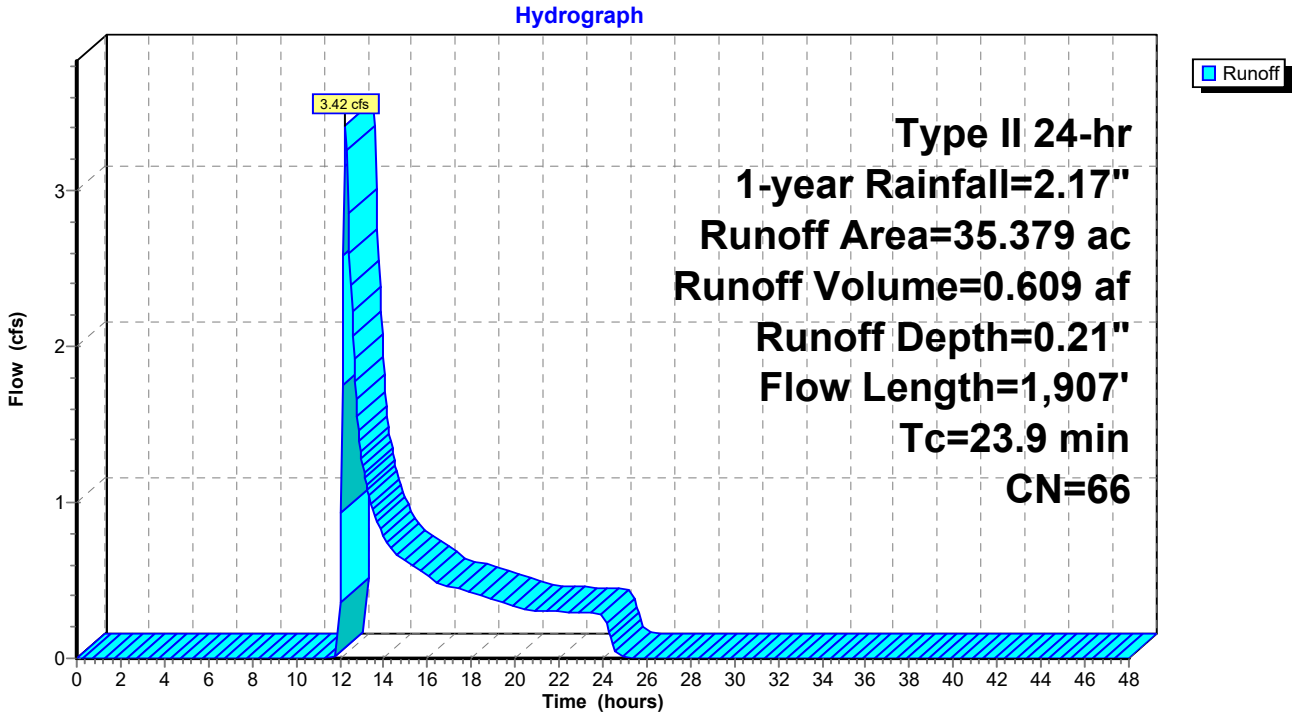
Runoff = 3.42 cfs @ 12.27 hrs, Volume= 0.609 af, Depth= 0.21"
Routed to Link SP56 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.17"

Area (ac)	CN	Description
0.895	48	Brush, Good, HSG B
1.460	65	Brush, Good, HSG C
10.196	58	Meadow, non-grazed, HSG B
15.876	71	Meadow, non-grazed, HSG C
1.244	55	Woods, Good, HSG B
5.708	70	Woods, Good, HSG C
35.379	66	Weighted Average
35.379		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0430	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.6	139	0.0430	1.45		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	369	0.1030	2.25		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	533	0.0820	2.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	206	0.2900	3.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.6	468	0.0580	1.69		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.5	92	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
23.9	1,907	Total			

Subcatchment 56S: Sub 56



Summary for Reach 33R:

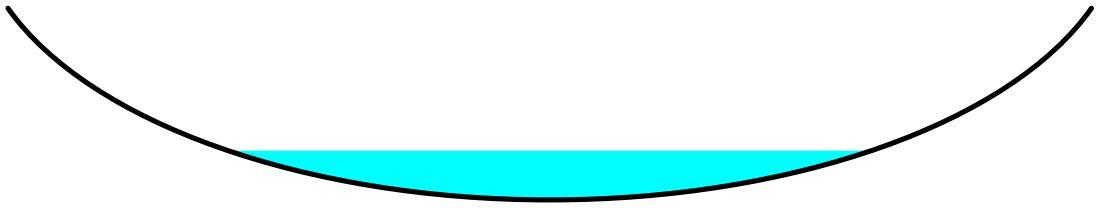
[79] Warning: Submerged Pond 34P Primary device # 1 OUTLET by 0.26'

Inflow Area = 25.795 ac, 1.16% Impervious, Inflow Depth = 0.13" for 1-year event
Inflow = 0.81 cfs @ 12.37 hrs, Volume= 0.271 af
Outflow = 0.58 cfs @ 13.38 hrs, Volume= 0.271 af, Atten= 29%, Lag= 60.1 min
Routed to Link SP34 :

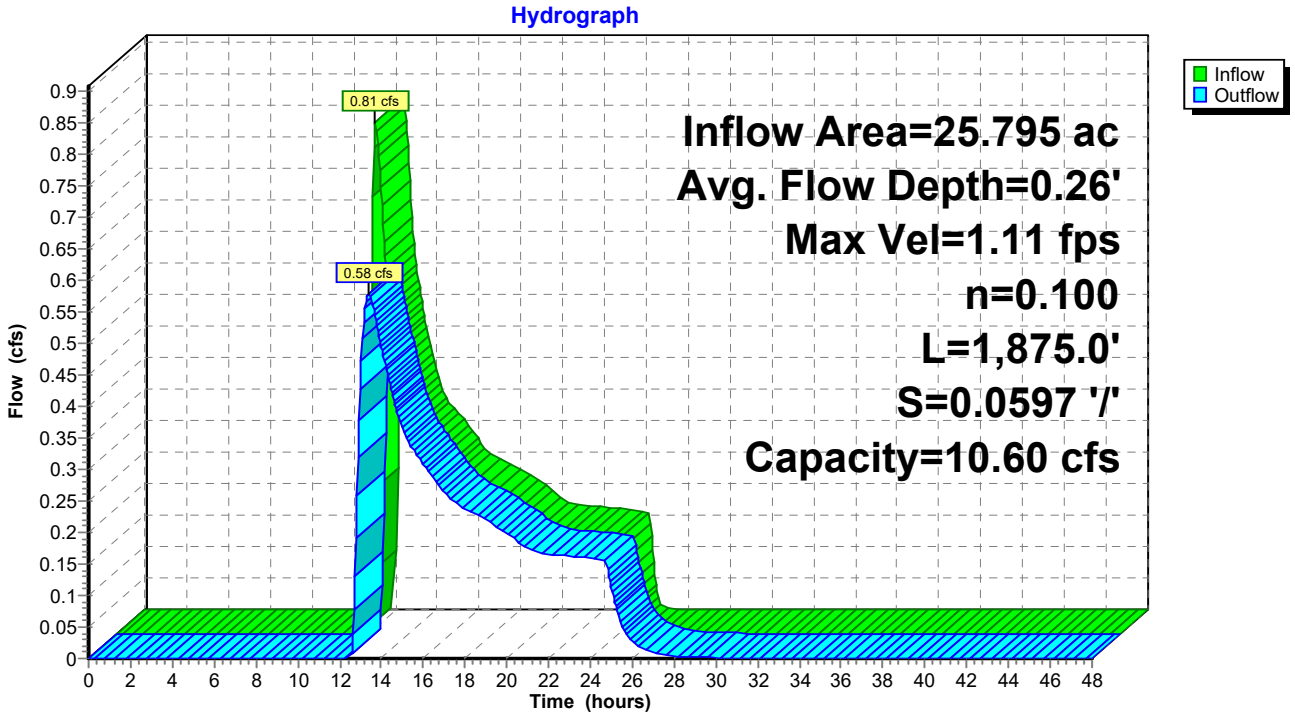
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.11 fps, Min. Travel Time= 28.2 min
Avg. Velocity = 0.42 fps, Avg. Travel Time= 75.1 min

Peak Storage= 980 cf @ 12.91 hrs
Average Depth at Peak Storage= 0.26' , Surface Width= 3.04'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 10.60 cfs

6.00' x 1.00' deep Parabolic Channel, n= 0.100 Earth, dense brush, high stage
Length= 1,875.0' Slope= 0.0597 '/'
Inlet Invert= 578.00', Outlet Invert= 466.00'



Reach 33R:



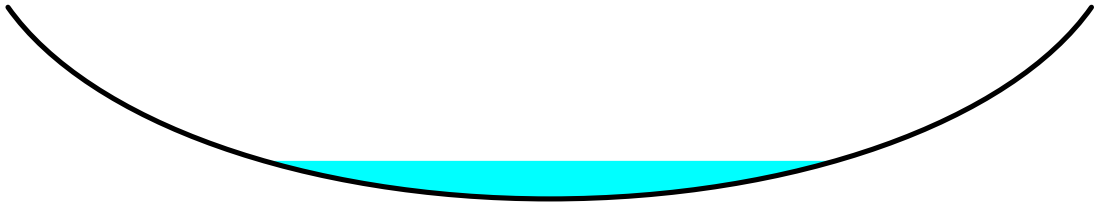
Summary for Reach 39R:

Inflow Area = 20.880 ac, 7.94% Impervious, Inflow Depth = 0.28" for 1-year event
Inflow = 3.15 cfs @ 12.32 hrs, Volume= 0.488 af
Outflow = 2.69 cfs @ 12.61 hrs, Volume= 0.488 af, Atten= 14%, Lag= 17.8 min
Routed to Link SP39 :

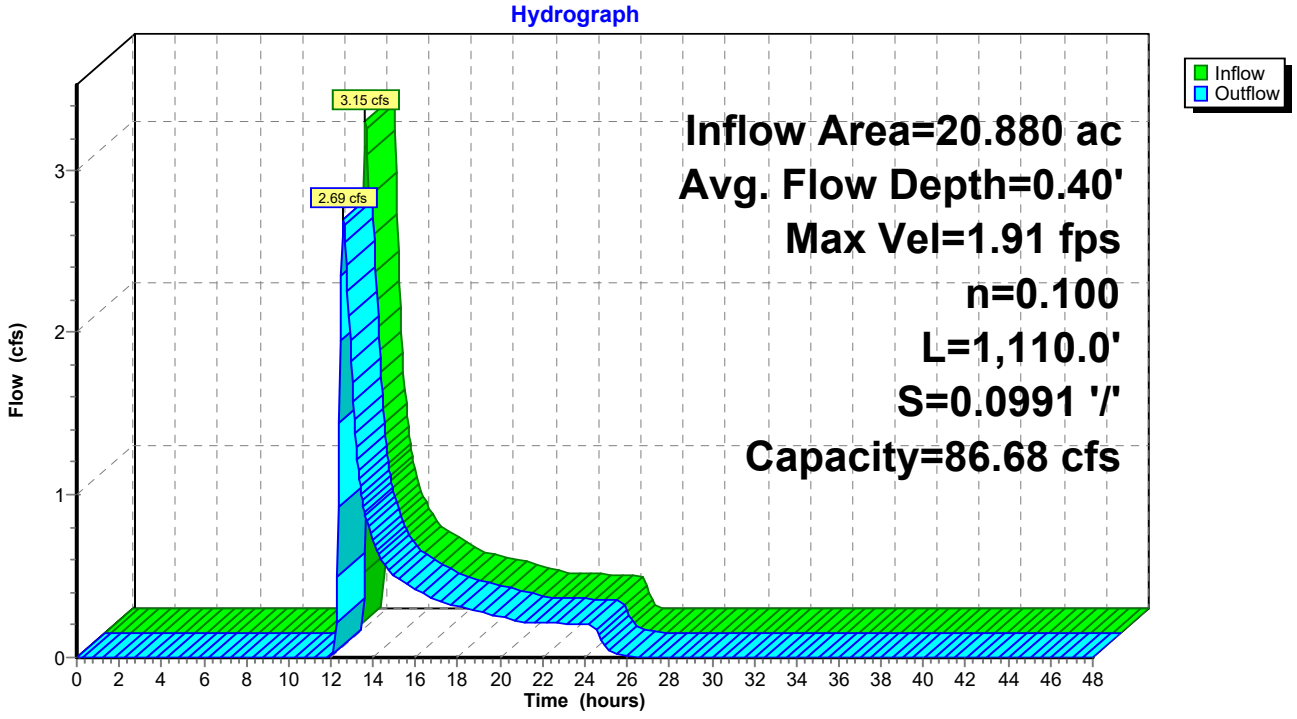
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.91 fps, Min. Travel Time= 9.7 min
Avg. Velocity = 0.76 fps, Avg. Travel Time= 24.3 min

Peak Storage= 1,571 cf @ 12.45 hrs
Average Depth at Peak Storage= 0.40' , Surface Width= 5.35'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 86.68 cfs

12.00' x 2.00' deep Parabolic Channel, n= 0.100 Earth, dense brush, high stage
Length= 1,110.0' Slope= 0.0991 '/'
Inlet Invert= 526.00', Outlet Invert= 416.00'



Reach 39R:



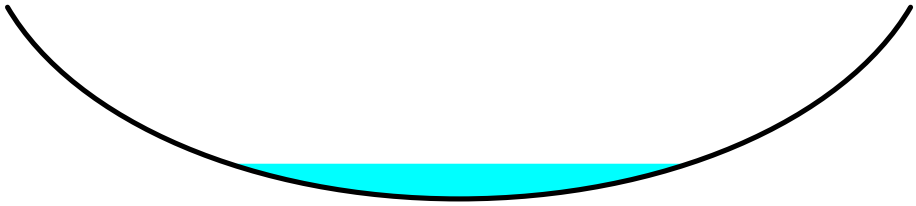
Summary for Reach 42R: S-NSD-16

Inflow Area = 31.263 ac, 0.62% Impervious, Inflow Depth = 0.18" for 1-year event
Inflow = 1.83 cfs @ 12.53 hrs, Volume= 0.481 af
Outflow = 1.40 cfs @ 13.24 hrs, Volume= 0.481 af, Atten= 23%, Lag= 42.8 min
Routed to Link SP42 :

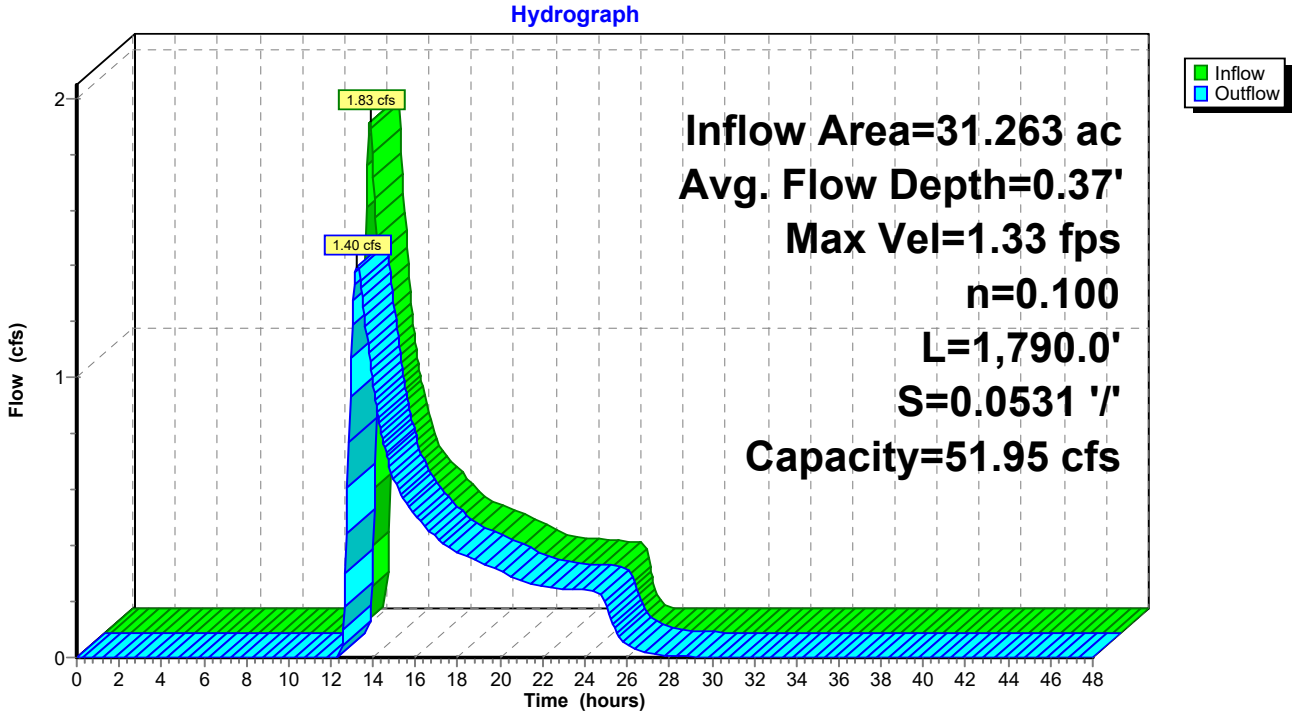
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.33 fps, Min. Travel Time= 22.5 min
Avg. Velocity = 0.52 fps, Avg. Travel Time= 57.3 min

Peak Storage= 1,890 cf @ 12.87 hrs
Average Depth at Peak Storage= 0.37' , Surface Width= 4.29'
Bank-Full Depth= 2.00' Flow Area= 13.3 sf, Capacity= 51.95 cfs

10.00' x 2.00' deep Parabolic Channel, n= 0.100 Earth, dense brush, high stage
Length= 1,790.0' Slope= 0.0531 '/'
Inlet Invert= 470.00', Outlet Invert= 375.00'



Reach 42R: S-NSD-16



Summary for Pond 25.1P: 25.1P

Inflow Area = 3.422 ac, 0.00% Impervious, Inflow Depth = 0.31" for 1-year event
Inflow = 1.05 cfs @ 12.08 hrs, Volume= 0.088 af
Outflow = 0.00 cfs @ 24.53 hrs, Volume= 0.000 af, Atten= 100%, Lag= 747.3 min
Primary = 0.00 cfs @ 24.53 hrs, Volume= 0.000 af
Routed to Link SP25 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP25 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 604.67' @ 24.53 hrs Surf.Area= 5,998 sf Storage= 3,824 cf

Plug-Flow detention time= 1,343.3 min calculated for 0.000 af (0% of inflow)
Center-of-Mass det. time= 1,139.7 min (2,057.4 - 917.7)

Volume	Invert	Avail.Storage	Storage Description
#1	604.00'	20,422 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

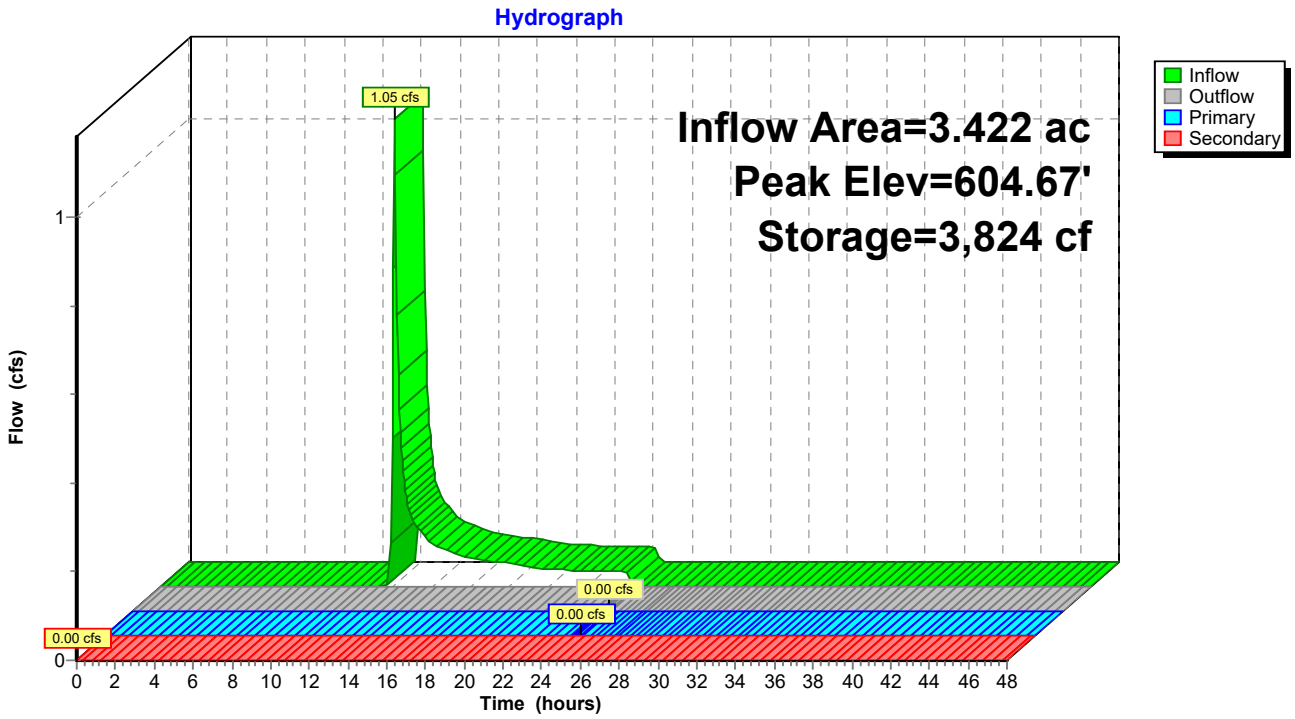
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
604.00	5,355	0	0
605.00	6,309	5,832	5,832
606.00	7,289	6,799	12,631
607.00	8,293	7,791	20,422

Device	Routing	Invert	Outlet Devices
#1	Primary	604.00'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 604.00' / 603.50' S= 0.0250 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	604.67'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	606.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	606.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 24.53 hrs HW=604.67' (Free Discharge)
└**1=Culvert** (Passes 0.00 cfs of 1.24 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.00 cfs @ 0.21 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=604.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 25.1P: 25.1P



Summary for Pond 27.1P: 27.1P

Inflow Area = 3.749 ac, 0.00% Impervious, Inflow Depth = 0.34" for 1-year event
Inflow = 1.22 cfs @ 12.10 hrs, Volume= 0.105 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP27 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP27 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 551.57' @ 24.90 hrs Surf.Area= 3,339 sf Storage= 4,582 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	550.00'	14,360 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

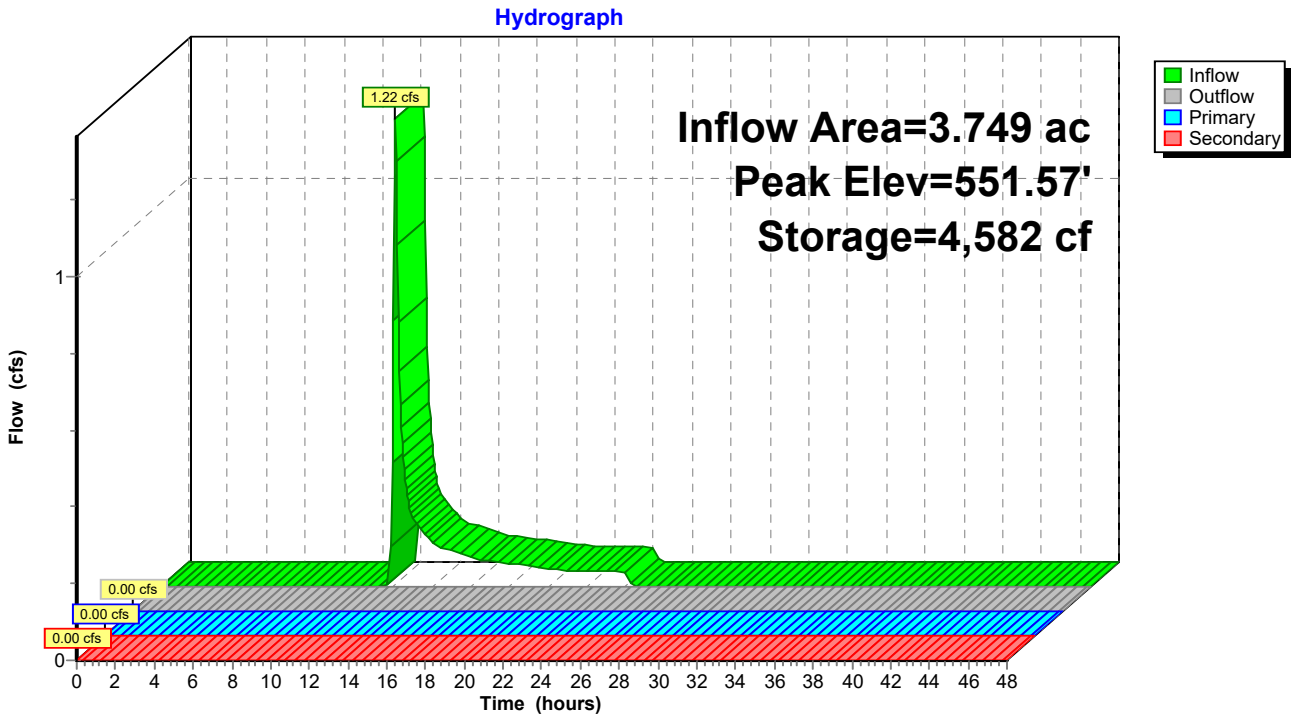
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
550.00	2,458	0	0
551.00	3,040	2,749	2,749
552.00	3,560	3,300	6,049
553.00	4,149	3,855	9,904
554.00	4,763	4,456	14,360

Device	Routing	Invert	Outlet Devices
#1	Primary	550.00'	**18.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 550.00' / 549.50' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	552.84'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	553.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	553.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=550.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=550.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 27.1P: 27.1P



Summary for Pond 28.1P: 28.1P

Inflow Area = 2.160 ac, 0.00% Impervious, Inflow Depth = 0.34" for 1-year event
Inflow = 0.79 cfs @ 12.07 hrs, Volume= 0.061 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP28 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP28 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 558.71' @ 24.70 hrs Surf.Area= 3,916 sf Storage= 2,640 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	558.00'	13,151 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

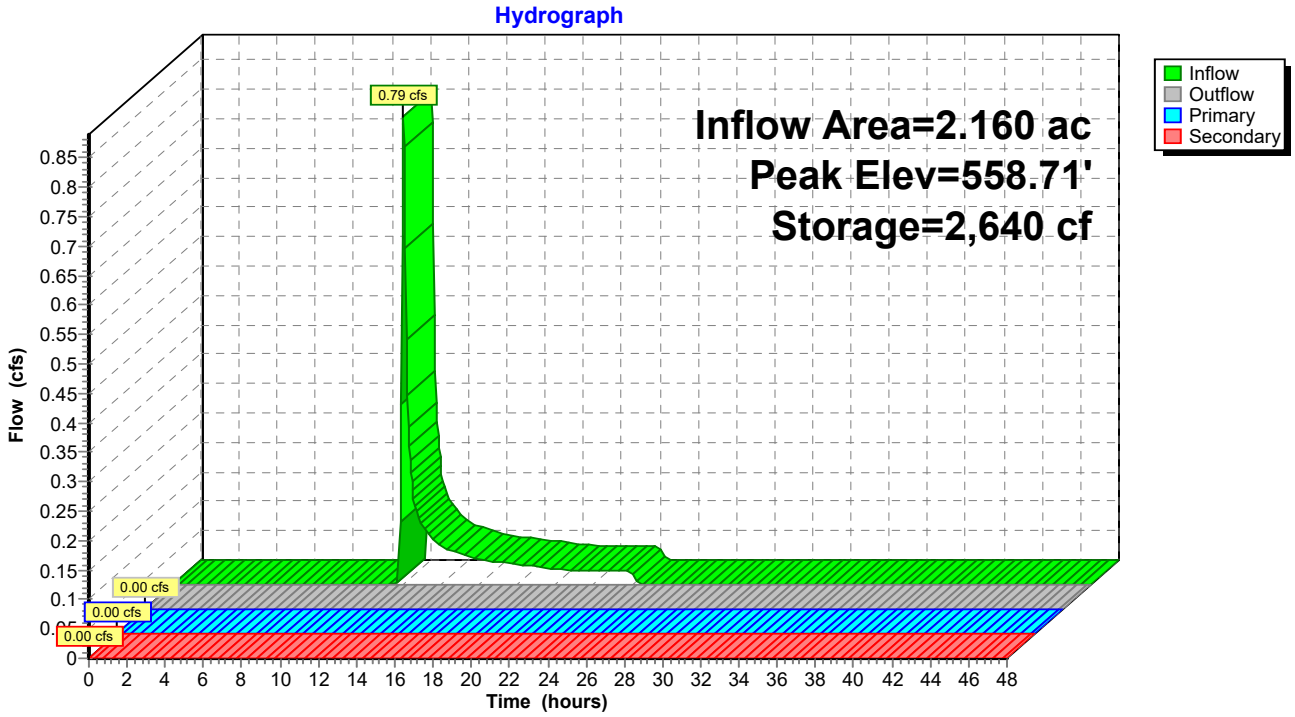
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
558.00	3,511	0	0
559.00	4,080	3,796	3,796
560.00	4,671	4,376	8,171
561.00	5,288	4,980	13,151

Device	Routing	Invert	Outlet Devices
#1	Primary	558.00'	**12.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 558.00' / 557.75' S= 0.0114 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	559.50'	**5.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	560.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	560.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=558.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=558.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 28.1P: 28.1P



Summary for Pond 30.1P: 30.1P

Inflow Area = 4.003 ac, 0.00% Impervious, Inflow Depth = 0.34" for 1-year event
Inflow = 0.80 cfs @ 12.31 hrs, Volume= 0.112 af
Outflow = 0.01 cfs @ 24.52 hrs, Volume= 0.040 af, Atten= 98%, Lag= 732.2 min
Discarded = 0.01 cfs @ 24.52 hrs, Volume= 0.040 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP30 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP30 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 460.00' @ 24.52 hrs Surf.Area= 4,563 sf Storage= 4,290 cf

Plug-Flow detention time= 1,058.4 min calculated for 0.040 af (35% of inflow)
Center-of-Mass det. time= 877.8 min (1,805.4 - 927.6)

Volume	Invert	Avail.Storage	Storage Description
#1	459.00'	20,702 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
459.00	3,996	0	0
460.00	4,562	4,279	4,279
461.00	5,153	4,858	9,137
462.00	5,770	5,462	14,598
463.00	6,437	6,104	20,702

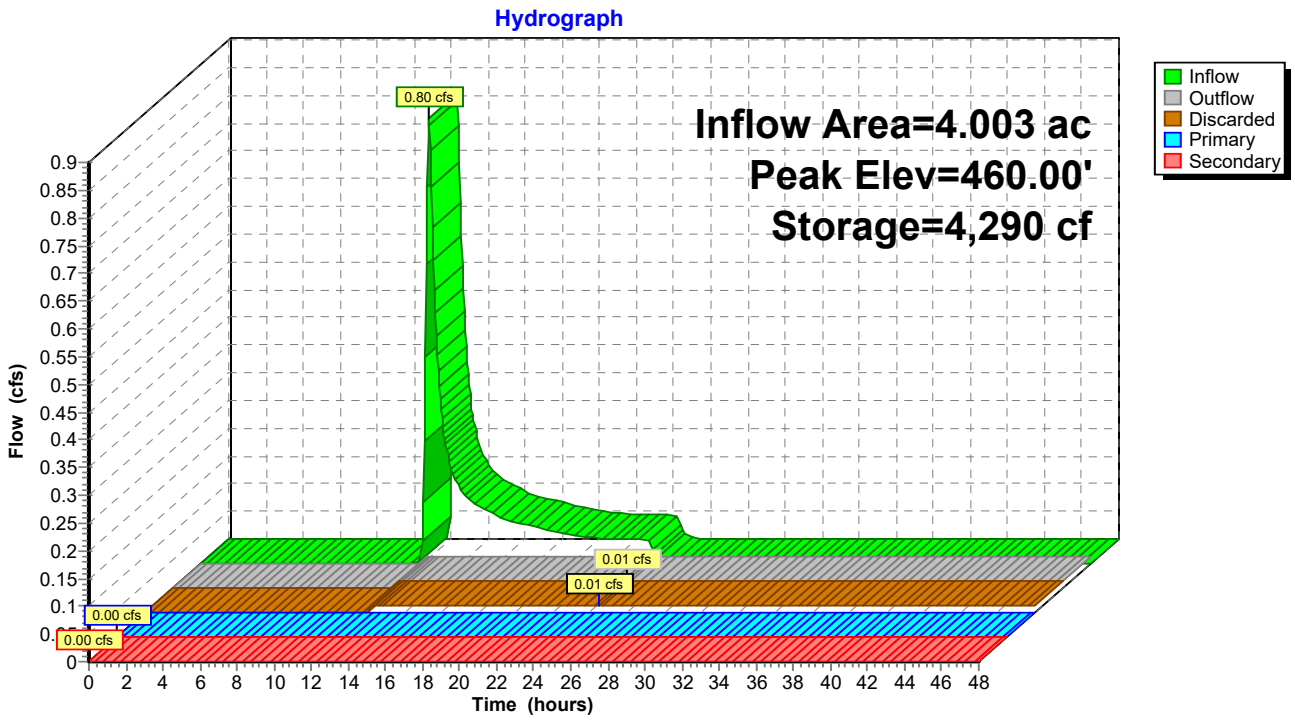
Device	Routing	Invert	Outlet Devices
#1	Primary	459.00'	**24.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 459.00' / 458.50' S= 0.0208 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	461.00'	**12.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	462.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	462.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#5	Discarded	459.00'	**0.129 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.01 cfs @ 24.52 hrs HW=460.00' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=459.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
  └**2=Orifice/Grate** (Controls 0.00 cfs)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=459.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 30.1P: 30.1P



Summary for Pond 31.1P: 31.1P

Inflow Area = 0.925 ac, 0.00% Impervious, Inflow Depth = 0.31" for 1-year event
Inflow = 0.32 cfs @ 12.05 hrs, Volume= 0.024 af
Outflow = 0.02 cfs @ 16.70 hrs, Volume= 0.024 af, Atten= 95%, Lag= 278.7 min
Discarded = 0.02 cfs @ 16.70 hrs, Volume= 0.024 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 510.12' @ 16.70 hrs Surf.Area= 3,826 sf Storage= 460 cf

Plug-Flow detention time= 355.6 min calculated for 0.024 af (100% of inflow)
Center-of-Mass det. time= 355.4 min (1,271.1 - 915.8)

Volume	Invert	Avail.Storage	Storage Description
#1	510.00'	14,187 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
510.00	3,748	0	0
511.00	4,388	4,068	4,068
512.00	5,053	4,721	8,789
513.00	5,744	5,399	14,187

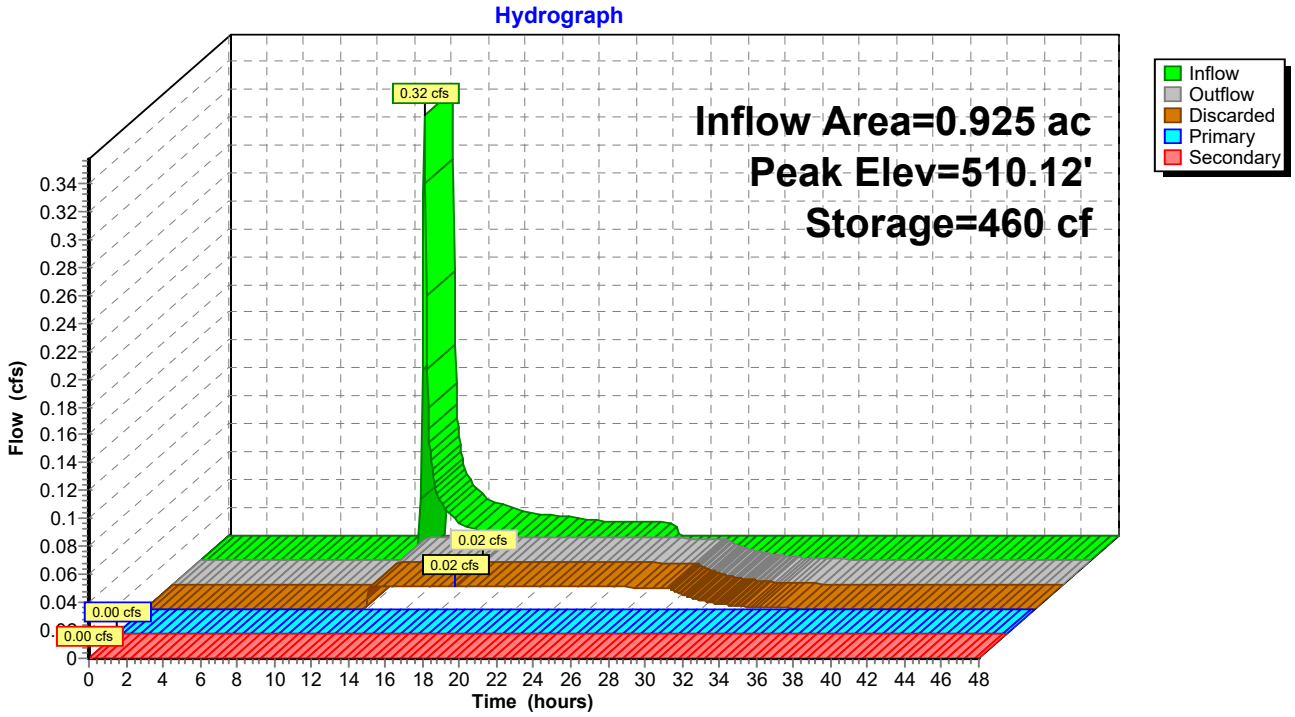
Device	Routing	Invert	Outlet Devices
#1	Primary	510.00'	**12.0" Round Culvert** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 510.00' / 509.50' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	512.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	512.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#4	Discarded	510.00'	**0.179 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.02 cfs @ 16.70 hrs HW=510.12' (Free Discharge)
↑—**4=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=510.00' (Free Discharge)
↑—**1=Culvert** (Controls 0.00 cfs)
↑—**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=510.00' (Free Discharge)
↑—**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 31.1P: 31.1P



Summary for Pond 32.1P: 32.1P

Inflow Area = 5.376 ac, 0.00% Impervious, Inflow Depth = 0.31" for 1-year event
Inflow = 1.22 cfs @ 12.18 hrs, Volume= 0.138 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 552.53' @ 25.15 hrs Surf.Area= 11,564 sf Storage= 6,008 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	552.00'	52,989 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

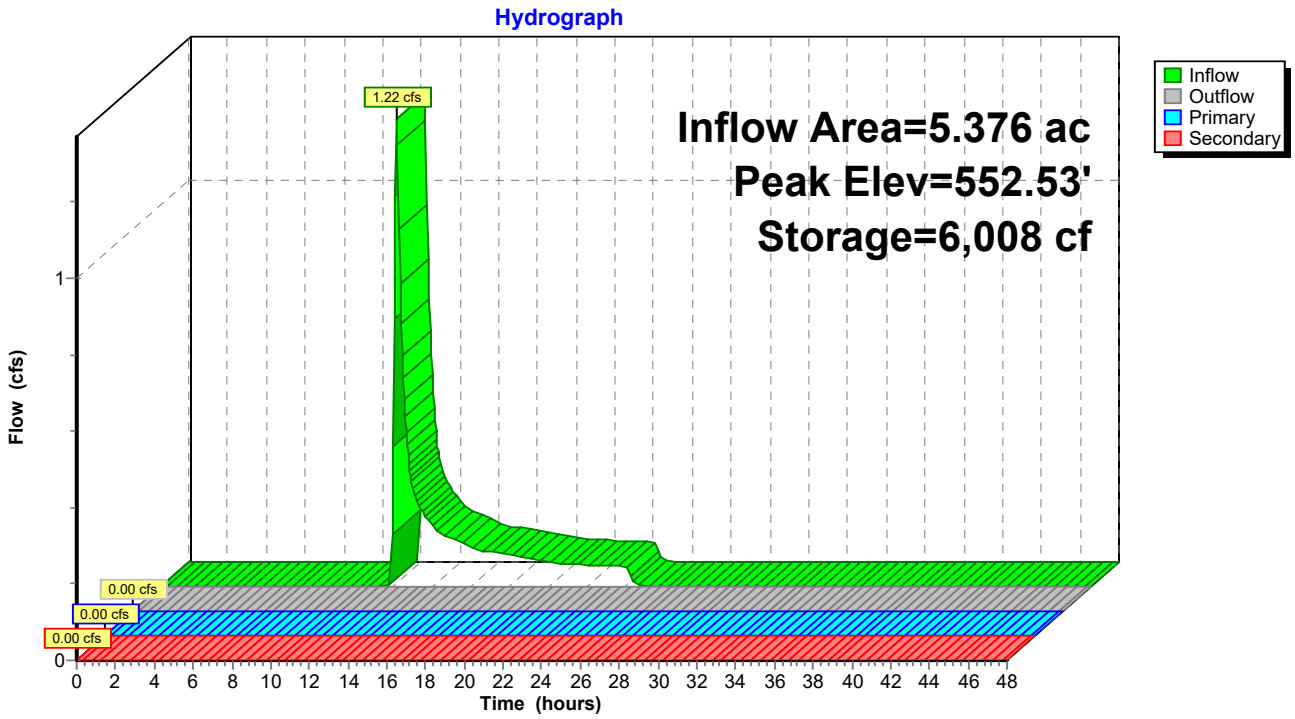
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
552.00	10,968	0	0
553.00	12,086	11,527	11,527
554.00	13,228	12,657	24,184
555.00	14,396	13,812	37,996
556.00	15,589	14,993	52,989

Device	Routing	Invert	Outlet Devices
#1	Primary	552.00'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 552.00' / 551.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	553.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	555.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	555.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=552.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=552.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 32.1P: 32.1P



Summary for Pond 33.1P: 33.1P

Inflow Area = 12.768 ac, 1.41% Impervious, Inflow Depth = 0.40" for 1-year event
Inflow = 2.90 cfs @ 12.39 hrs, Volume= 0.424 af
Outflow = 0.03 cfs @ 24.73 hrs, Volume= 0.042 af, Atten= 99%, Lag= 740.5 min
Primary = 0.03 cfs @ 24.73 hrs, Volume= 0.042 af
Routed to Link SP34 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 590.61' @ 24.73 hrs Surf.Area= 30,088 sf Storage= 18,155 cf

Plug-Flow detention time= 1,213.0 min calculated for 0.042 af (10% of inflow)
Center-of-Mass det. time= 1,023.6 min (1,945.9 - 922.3)

Volume	Invert	Avail.Storage	Storage Description
#1	590.00'	130,285 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

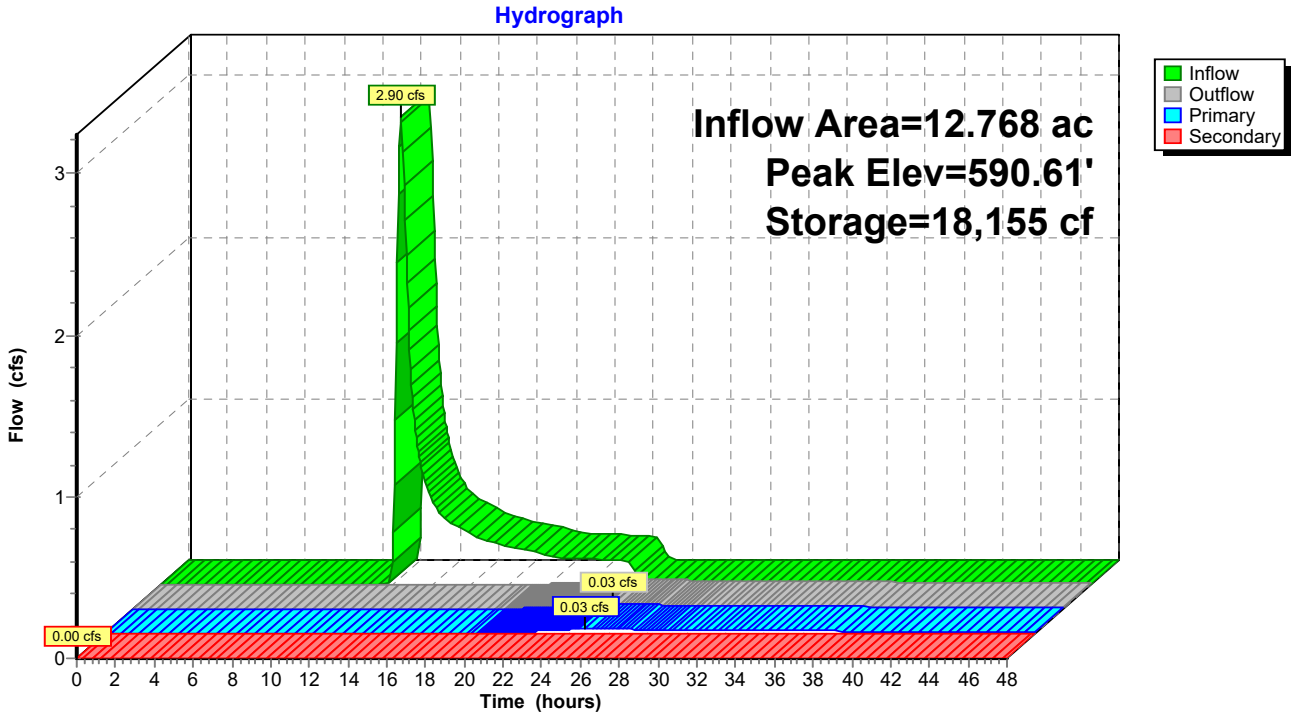
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
590.00	29,006	0	0
591.00	30,767	29,887	29,887
592.00	32,552	31,660	61,546
593.00	34,363	33,458	95,004
594.00	36,199	35,281	130,285

Device	Routing	Invert	Outlet Devices
#1	Primary	590.00'	**12.0" Round Culvert** L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 590.00' / 589.75' S= 0.0083 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	590.50'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	593.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	593.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.03 cfs @ 24.73 hrs HW=590.61' (Free Discharge)
└**1=Culvert** (Passes 0.03 cfs of 1.06 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 1.15 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=590.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 33.1P: 33.1P



Summary for Pond 34P: VAN EPPS RD CULVERT

Inflow Area = 25.795 ac, 1.16% Impervious, Inflow Depth = 0.13" for 1-year event
Inflow = 0.81 cfs @ 12.37 hrs, Volume= 0.271 af
Outflow = 0.81 cfs @ 12.37 hrs, Volume= 0.271 af, Atten= 0%, Lag= 0.3 min
Primary = 0.81 cfs @ 12.37 hrs, Volume= 0.271 af
Routed to Reach 33R :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach 33R :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 580.48' @ 12.37 hrs Surf.Area= 66 sf Storage= 12 cf

Plug-Flow detention time= 0.2 min calculated for 0.271 af (100% of inflow)
Center-of-Mass det. time= 0.2 min (998.8 - 998.6)

Volume	Invert	Avail.Storage	Storage Description
#1	580.00'	32,769 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

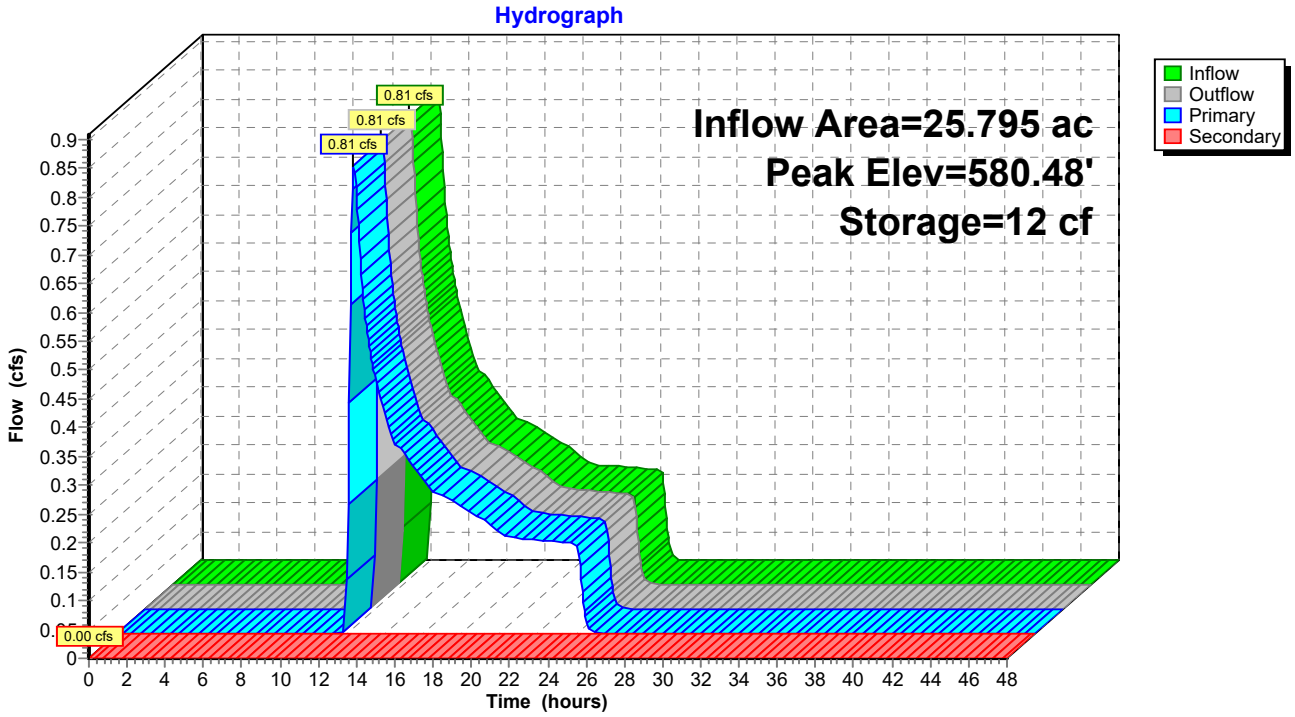
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
580.00	1	5.0	0	0	1
582.00	935	220.0	644	644	3,857
584.00	6,900	505.0	6,917	7,561	20,316
585.00	12,860	515.0	9,727	17,288	21,274
586.00	18,260	645.0	15,481	32,769	33,289

Device	Routing	Invert	Outlet Devices
#1	Primary	580.00'	**15.0" Round Culvert** L= 79.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 580.00' / 578.00' S= 0.0253 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Secondary	585.00'	**15.0' long + 3.0 '/' SideZ x 25.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.81 cfs @ 12.37 hrs HW=580.48' (Free Discharge)
1=Culvert (Inlet Controls 0.81 cfs @ 1.86 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=580.00' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 34P: VAN EPPS RD CULVERT



Summary for Pond 42P: 42P

Inflow Area = 4.857 ac, 0.00% Impervious, Inflow Depth = 0.26" for 1-year event
Inflow = 1.64 cfs @ 12.00 hrs, Volume= 0.107 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP42 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP42 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 458.43' @ 24.40 hrs Surf.Area= 11,044 sf Storage= 4,668 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	458.00'	37,253 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

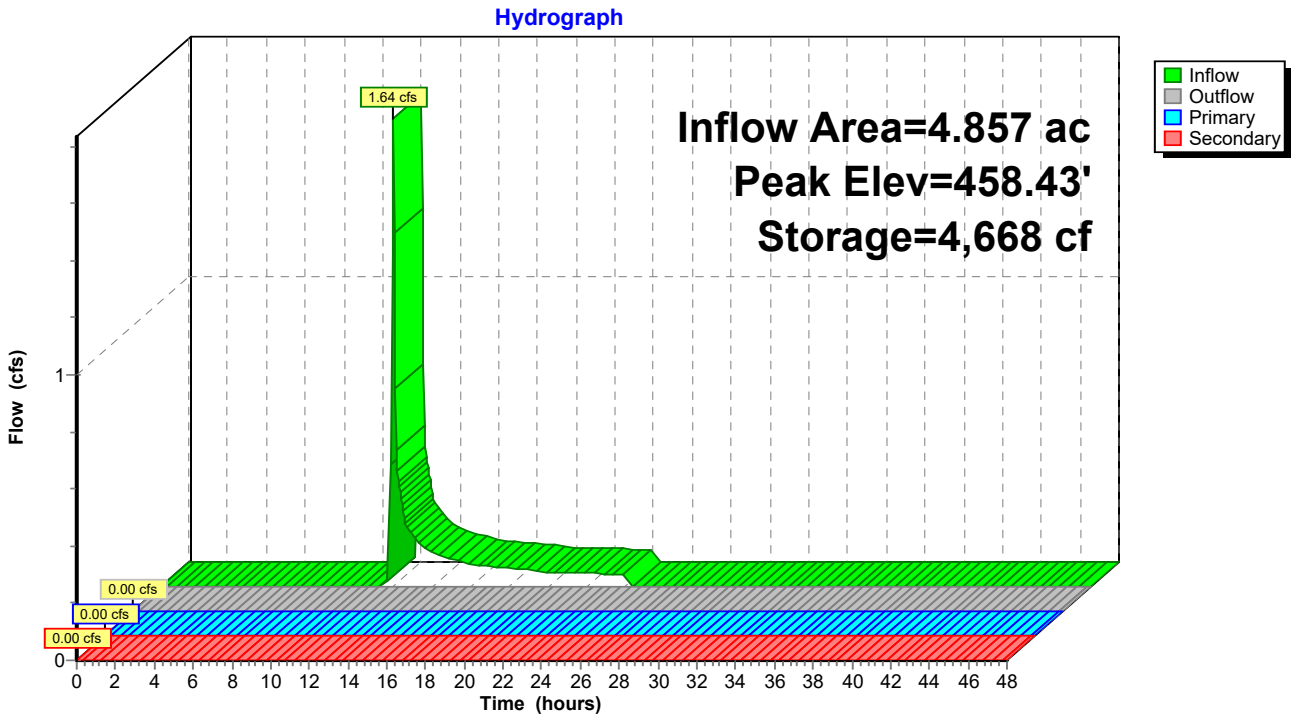
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
458.00	10,519	610.0	0	0	10,519
459.00	11,752	622.6	11,130	11,130	11,900
460.00	13,010	635.2	12,376	23,505	13,309
461.00	14,498	714.6	13,747	37,253	21,865

Device	Routing	Invert	Outlet Devices
#1	Primary	458.00'	**12.0" Round Culvert** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 458.00' / 456.75' S= 0.0391 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	459.78'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	460.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	460.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 42P: 42P


Hydrograph
Inflow Area=4.857 ac
Peak Elev=458.43'
Storage=4,668 cf
1.64 cfs
0.00 cfs
0.00 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
0
1
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Pond 49.1P: 49.1P

Inflow Area = 4.740 ac, 6.79% Impervious, Inflow Depth = 0.18" for 1-year event
Inflow = 0.63 cfs @ 12.07 hrs, Volume= 0.073 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP42 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP42 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 532.48' @ 24.60 hrs Surf.Area= 6,763 sf Storage= 3,174 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	532.00'	32,642 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

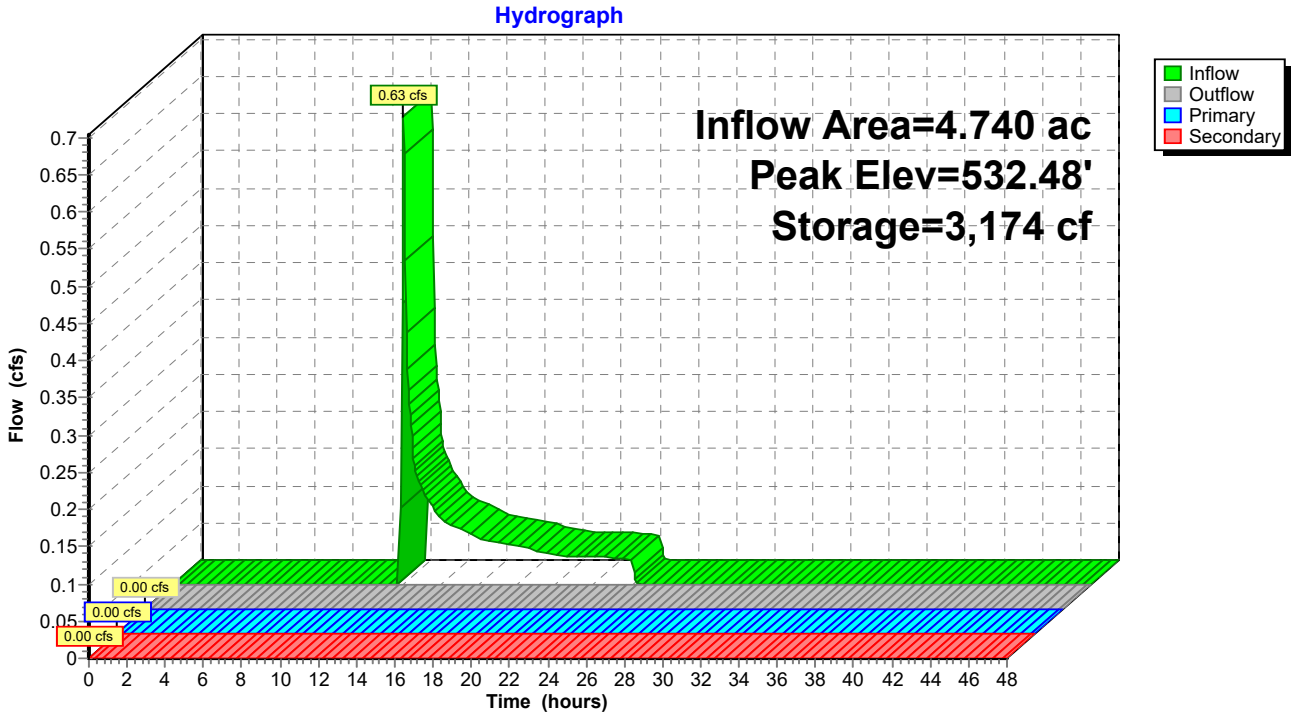
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
532.00	6,368	0	0
533.00	7,185	6,777	6,777
534.00	8,079	7,632	14,409
535.00	9,092	8,586	22,994
536.00	10,204	9,648	32,642

Device	Routing	Invert	Outlet Devices
#1	Primary	532.00'	**24.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 532.00' / 531.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	535.83'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	535.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	535.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=532.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=532.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 49.1P: 49.1P



Summary for Pond 49.2P: 49.2S

Inflow Area = 3.533 ac, 0.14% Impervious, Inflow Depth = 0.31" for 1-year event
Inflow = 1.52 cfs @ 12.00 hrs, Volume= 0.091 af
Outflow = 0.03 cfs @ 24.06 hrs, Volume= 0.015 af, Atten= 98%, Lag= 723.5 min
Primary = 0.03 cfs @ 24.06 hrs, Volume= 0.015 af
Routed to Link SP42 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP42 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 522.76' @ 24.06 hrs Surf.Area= 5,258 sf Storage= 3,710 cf

Plug-Flow detention time= 935.3 min calculated for 0.015 af (17% of inflow)
Center-of-Mass det. time= 741.8 min (1,653.6 - 911.8)

Volume	Invert	Avail.Storage	Storage Description
#1	522.00'	11,001 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

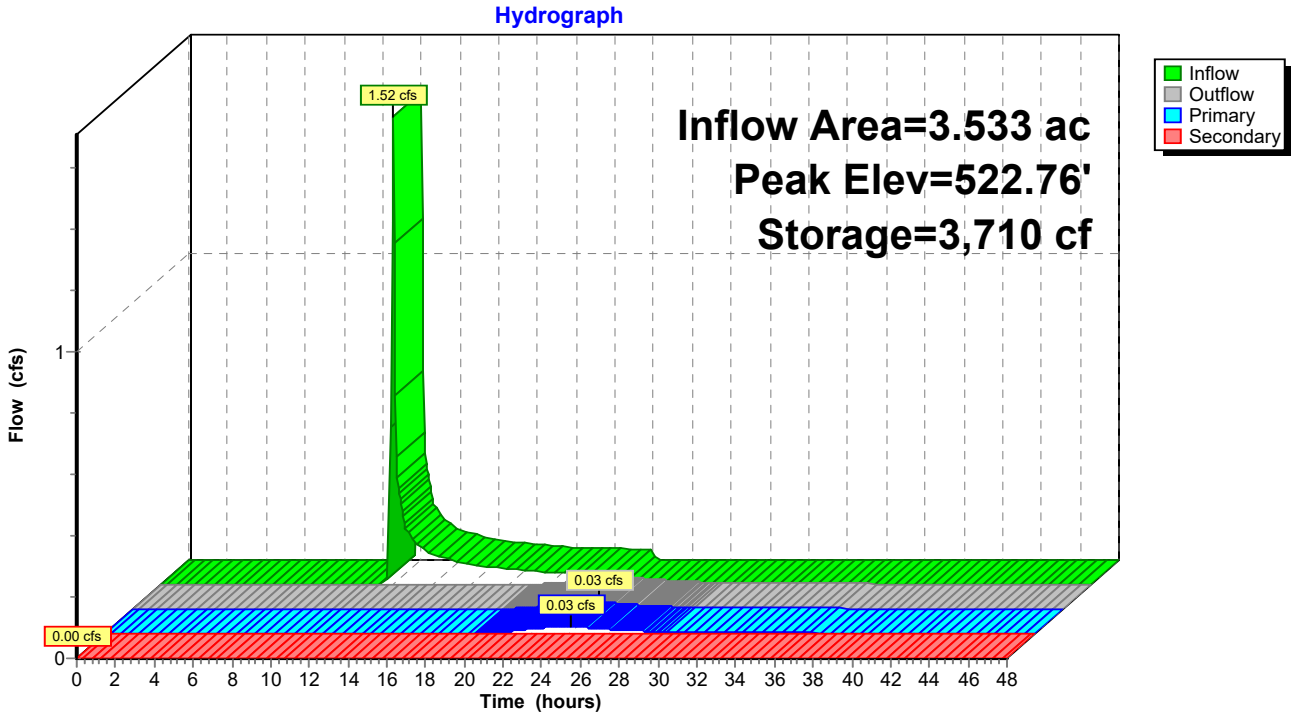
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
522.00	4,515	0	0
523.00	5,494	5,005	5,005
524.00	6,498	5,996	11,001

Device	Routing	Invert	Outlet Devices
#1	Primary	522.00'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 522.00' / 521.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	522.67'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	523.50'	**48.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	523.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 24.06 hrs HW=522.76' (Free Discharge)
└**1=Culvert** (Passes 0.02 cfs of 1.50 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.02 cfs @ 1.02 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=522.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 49.2P: 49.2S



Summary for Pond 51.1P: 51.1P

Inflow Area = 8.131 ac, 0.00% Impervious, Inflow Depth = 0.40" for 1-year event
Inflow = 2.32 cfs @ 12.25 hrs, Volume= 0.270 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP51 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP51 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 603.44' @ 25.55 hrs Surf.Area= 8,839 sf Storage= 11,772 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	602.00'	49,222 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

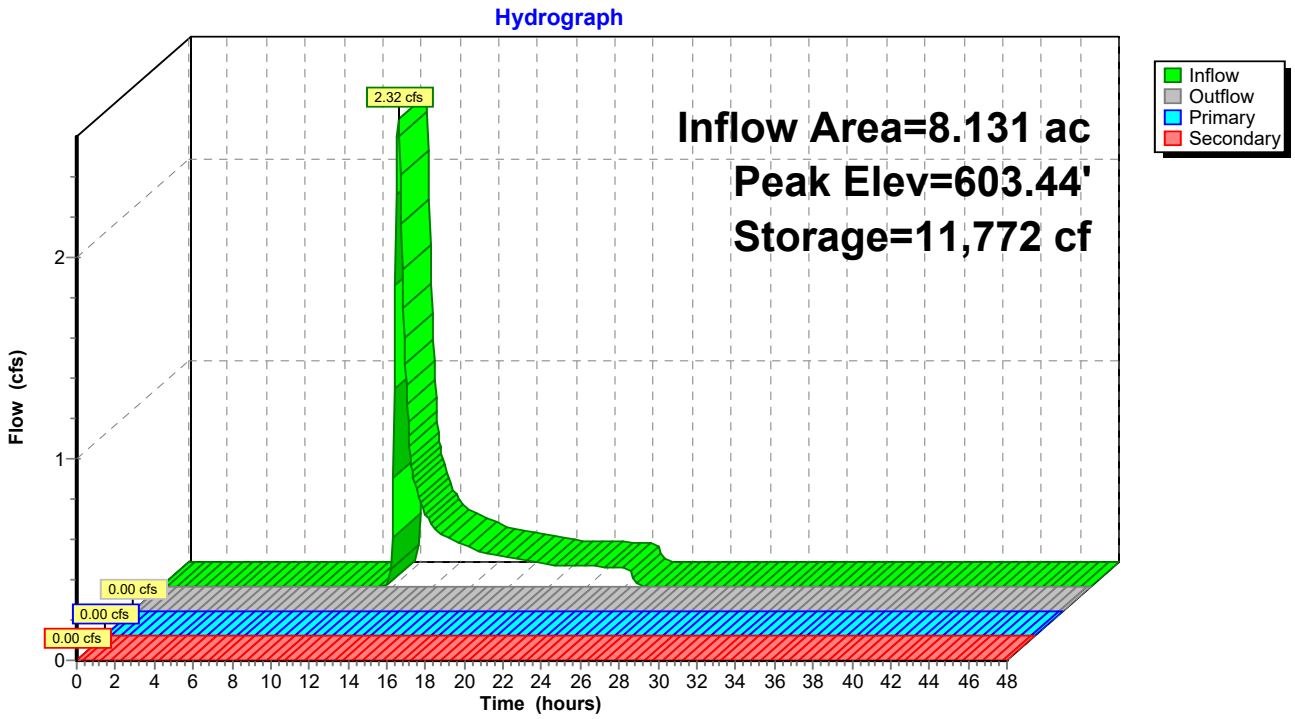
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
602.00	7,555	0	0
603.00	8,441	7,998	7,998
604.00	9,351	8,896	16,894
605.00	10,287	9,819	26,713
606.00	11,248	10,768	37,481
607.00	12,234	11,741	49,222

Device	Routing	Invert	Outlet Devices
#1	Primary	600.00'	**12.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 600.00' / 598.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	605.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	606.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	606.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=602.00' (Free Discharge)
└**1=Culvert** (Passes 0.00 cfs of 3.66 cfs potential flow)
├**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=602.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 51.1P: 51.1P



Summary for Pond 52.1P: 52.1P

Inflow Area = 0.805 ac, 0.00% Impervious, Inflow Depth = 0.34" for 1-year event
Inflow = 0.49 cfs @ 11.91 hrs, Volume= 0.023 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP52 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP52 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 648.26' @ 24.05 hrs Surf.Area= 3,908 sf Storage= 984 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	648.00'	14,790 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

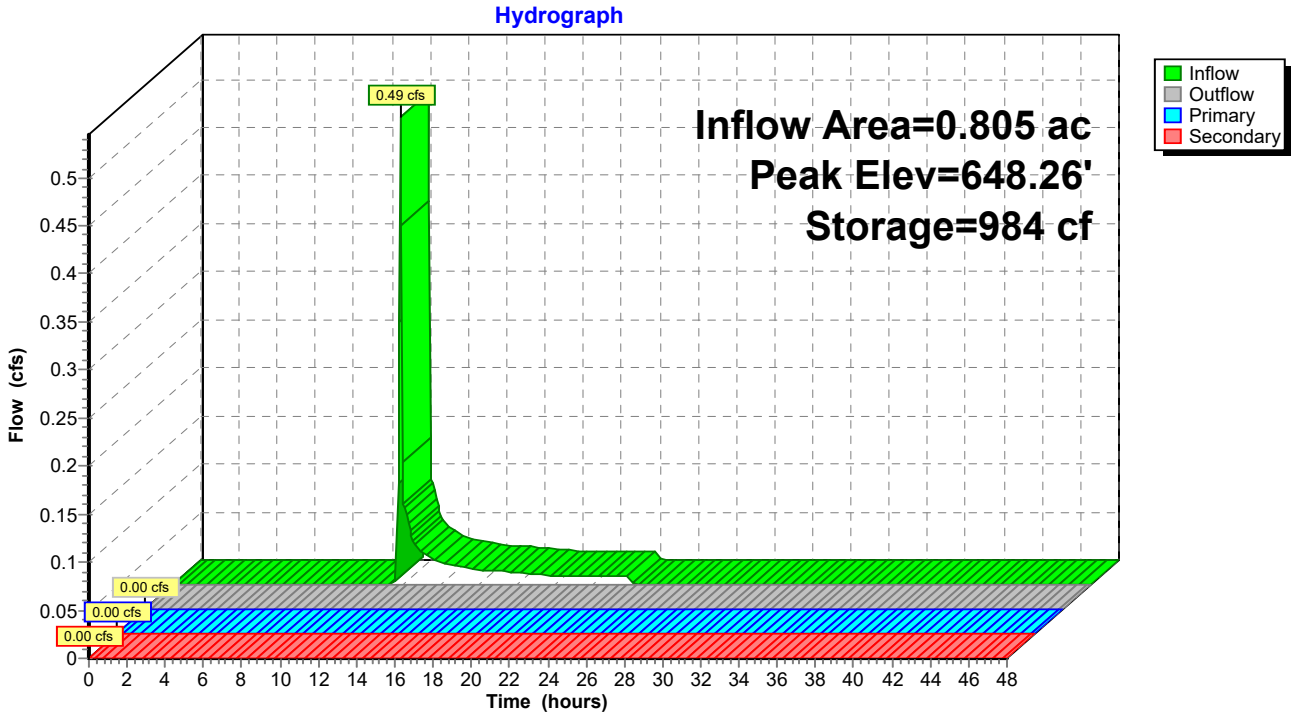
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
648.00	3,699	0	0
649.00	4,506	4,103	4,103
650.00	5,337	4,922	9,024
651.00	6,194	5,766	14,790

Device	Routing	Invert	Outlet Devices
#1	Primary	648.00'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 648.00' / 647.50' S= 0.0250 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	649.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	650.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	650.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=648.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=648.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 52.1P: 52.1P



Summary for Pond 56.1P: 56.1P

Inflow Area = 27.373 ac, 0.00% Impervious, Inflow Depth = 0.31" for 1-year event
Inflow = 5.66 cfs @ 12.22 hrs, Volume= 0.702 af
Outflow = 0.30 cfs @ 21.03 hrs, Volume= 0.308 af, Atten= 95%, Lag= 528.2 min
Primary = 0.30 cfs @ 21.03 hrs, Volume= 0.308 af
Routed to Link SP56 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP56 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 415.35' @ 21.03 hrs Surf.Area= 17,943 sf Storage= 22,420 cf

Plug-Flow detention time= 696.7 min calculated for 0.308 af (44% of inflow)
Center-of-Mass det. time= 520.6 min (1,448.2 - 927.6)

Volume	Invert	Avail.Storage	Storage Description
#1	414.00'	128,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

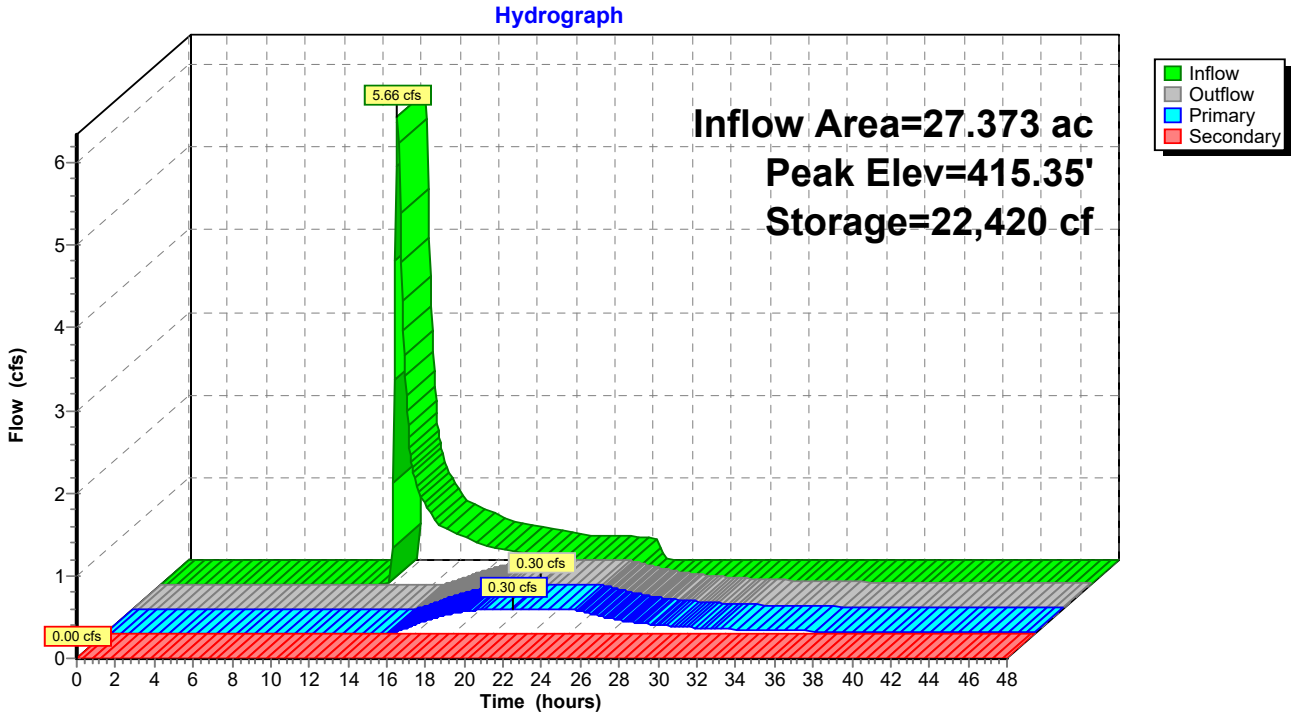
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
414.00	15,198	0	0
415.00	17,220	16,209	16,209
416.00	19,266	18,243	34,452
417.00	21,338	20,302	54,754
418.00	23,435	22,387	77,141
419.00	25,558	24,497	101,637
420.00	27,705	26,632	128,269

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	**12.0" Round Culvert X 2.00** L= 70.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 414.00' / 413.50' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	415.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	419.50'	**48.0" Horiz. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Secondary	419.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.30 cfs @ 21.03 hrs HW=415.35' (Free Discharge)
└**1=Culvert** (Passes 0.30 cfs of 5.52 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.30 cfs @ 2.02 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=414.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 56.1P: 56.1P

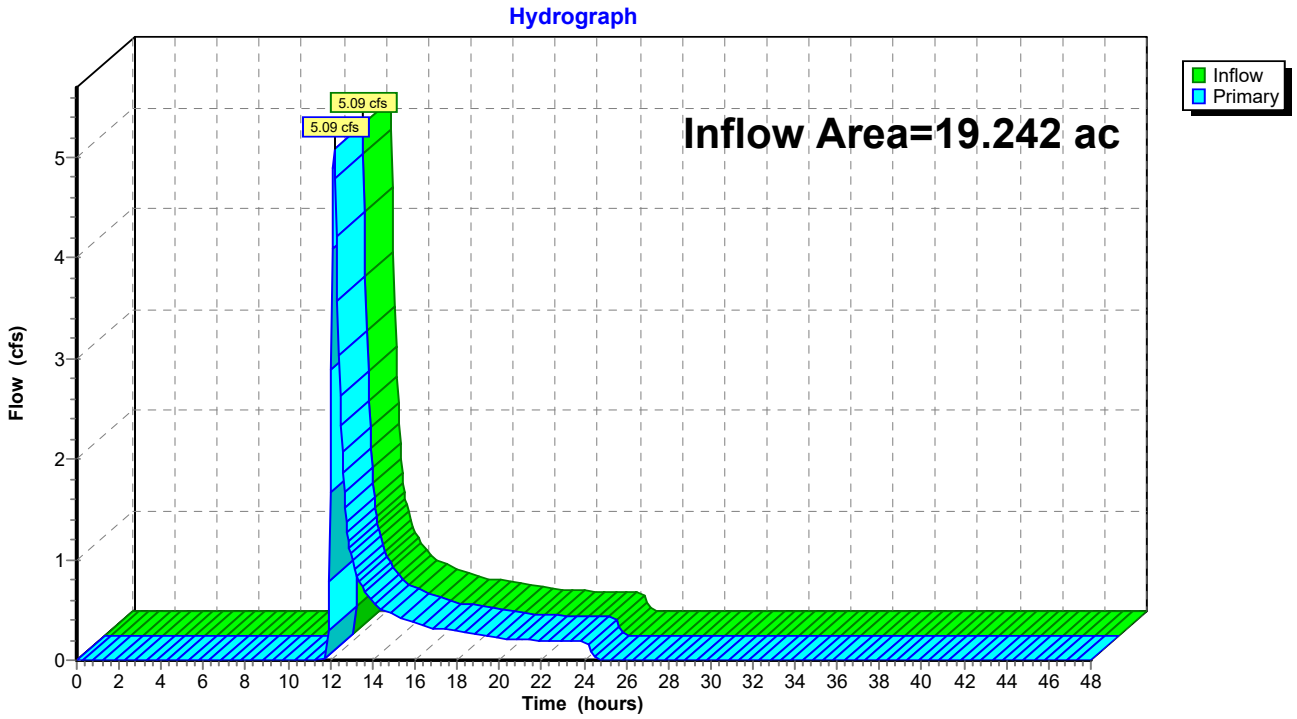


Summary for Link SP25:

Inflow Area = 19.242 ac, 0.51% Impervious, Inflow Depth = 0.33" for 1-year event
Inflow = 5.09 cfs @ 12.19 hrs, Volume= 0.526 af
Primary = 5.09 cfs @ 12.19 hrs, Volume= 0.526 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP25:

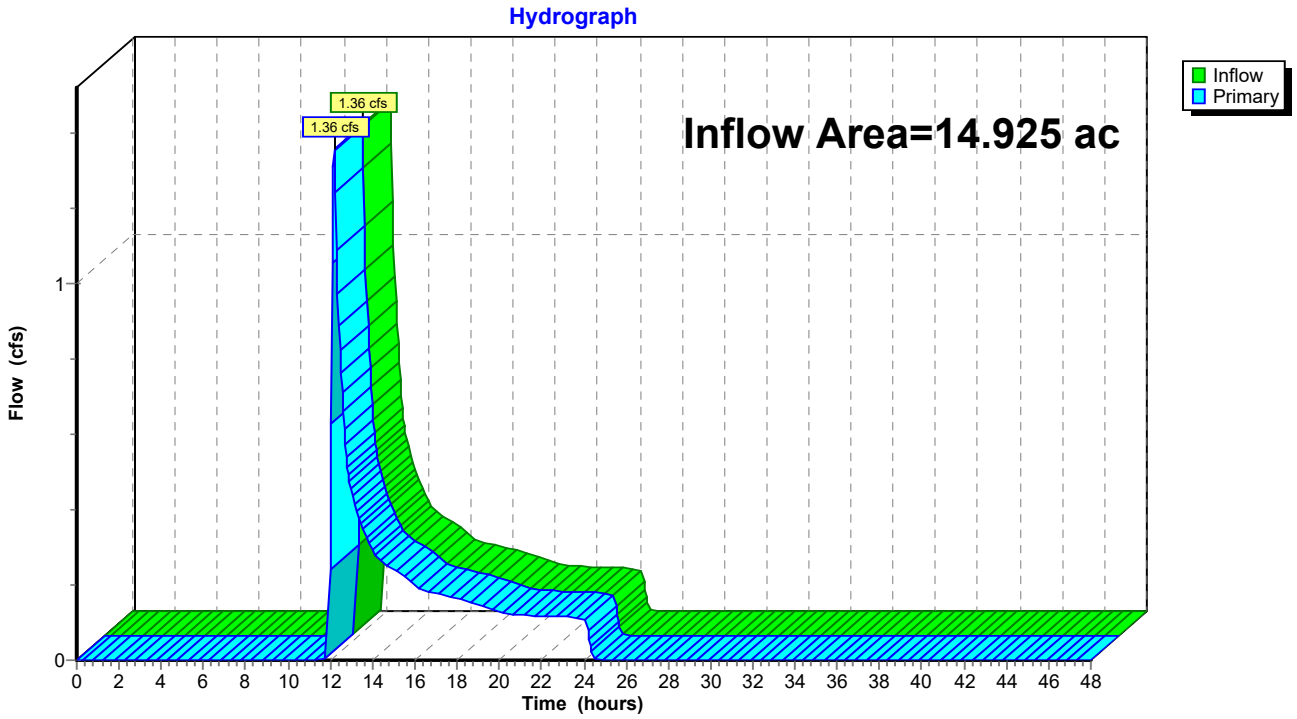


Summary for Link SP26:

Inflow Area = 14.925 ac, 5.39% Impervious, Inflow Depth = 0.18" for 1-year event
Inflow = 1.36 cfs @ 12.19 hrs, Volume= 0.229 af
Primary = 1.36 cfs @ 12.19 hrs, Volume= 0.229 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP26:

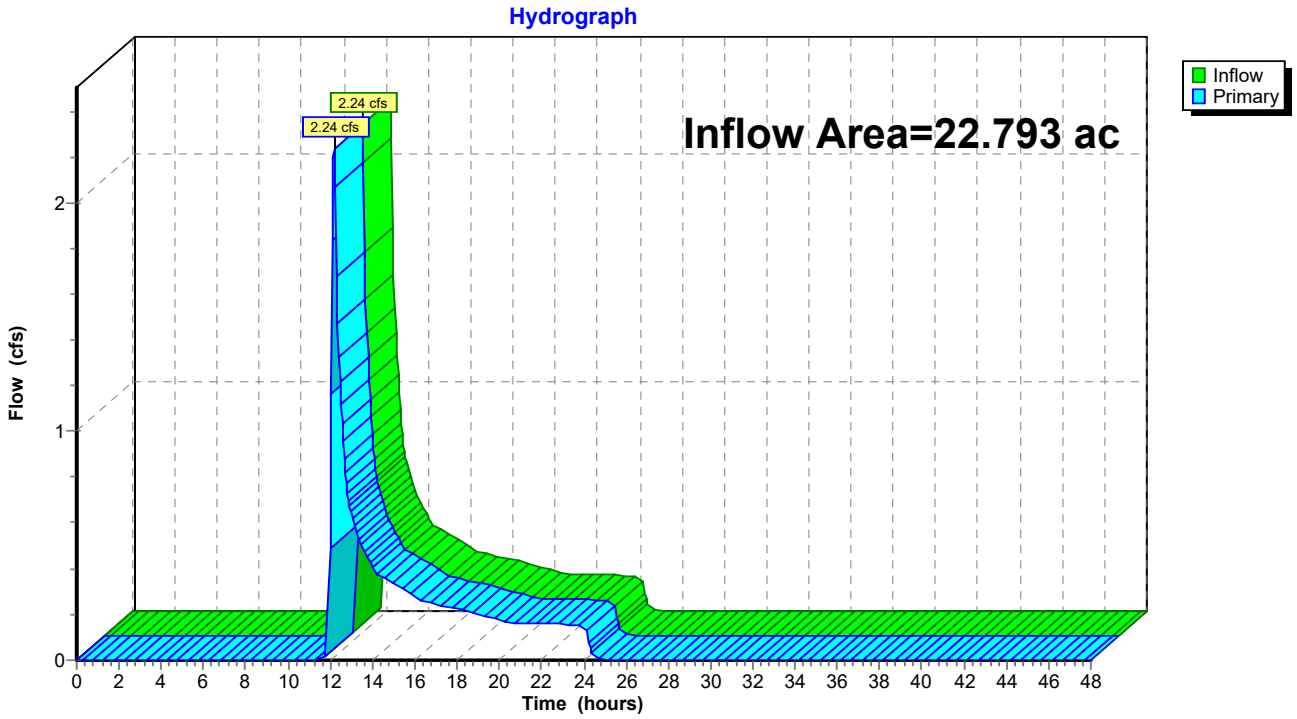


Summary for Link SP27:

Inflow Area = 22.793 ac, 1.95% Impervious, Inflow Depth = 0.17" for 1-year event
Inflow = 2.24 cfs @ 12.17 hrs, Volume= 0.328 af
Primary = 2.24 cfs @ 12.17 hrs, Volume= 0.328 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP27:

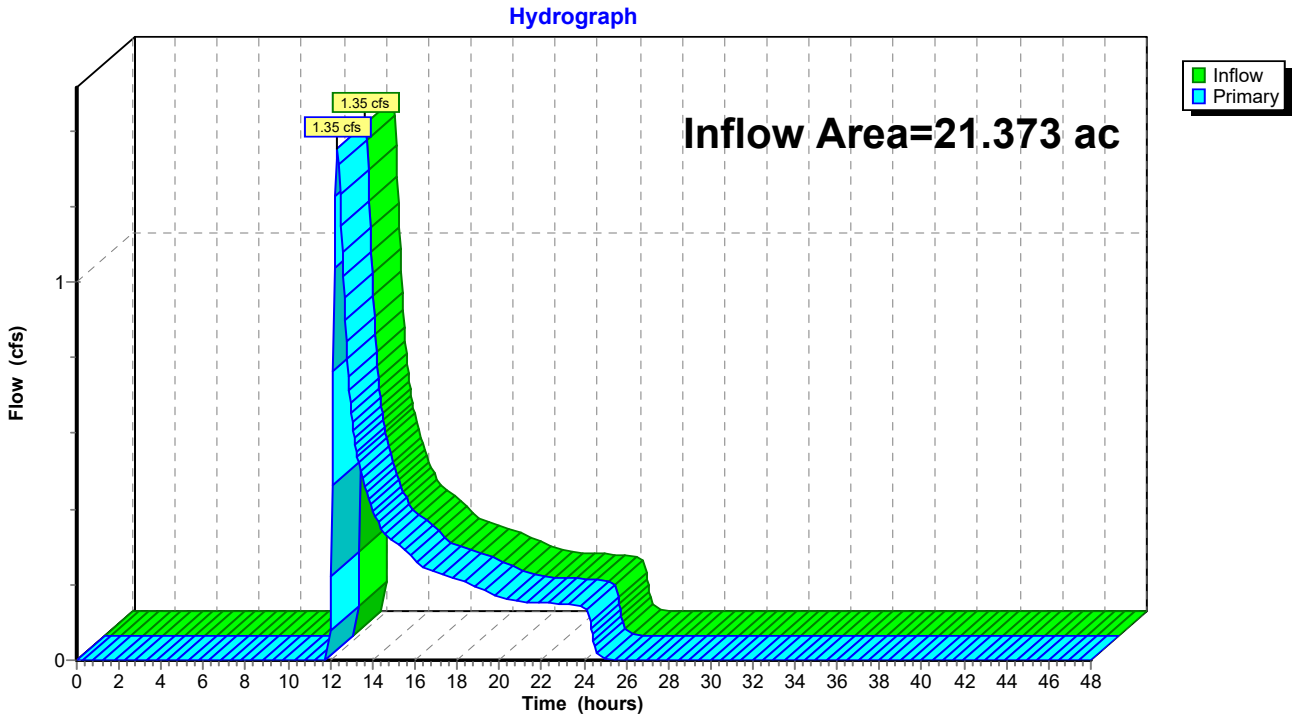


Summary for Link SP28:

Inflow Area = 21.373 ac, 0.53% Impervious, Inflow Depth = 0.17" for 1-year event
Inflow = 1.35 cfs @ 12.34 hrs, Volume= 0.295 af
Primary = 1.35 cfs @ 12.34 hrs, Volume= 0.295 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP28:

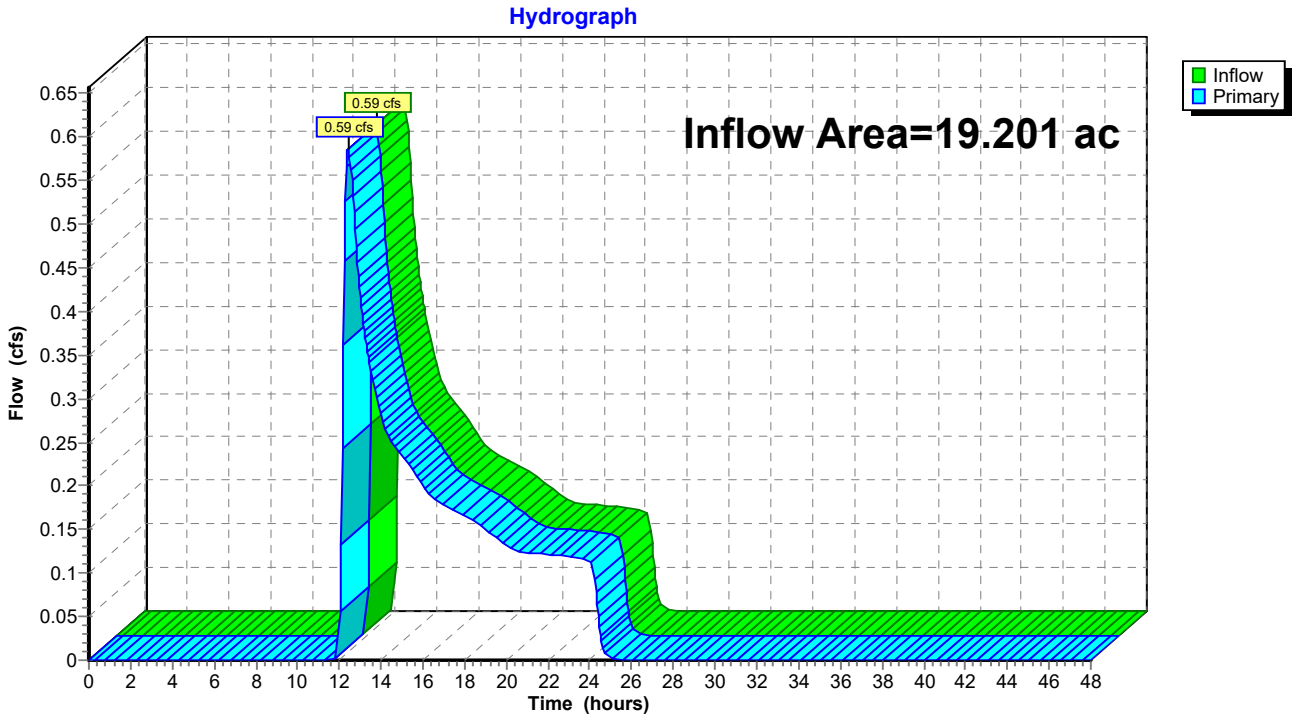


Summary for Link SP29:

Inflow Area = 19.201 ac, 1.25% Impervious, Inflow Depth = 0.13" for 1-year event
Inflow = 0.59 cfs @ 12.42 hrs, Volume= 0.202 af
Primary = 0.59 cfs @ 12.42 hrs, Volume= 0.202 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP29:

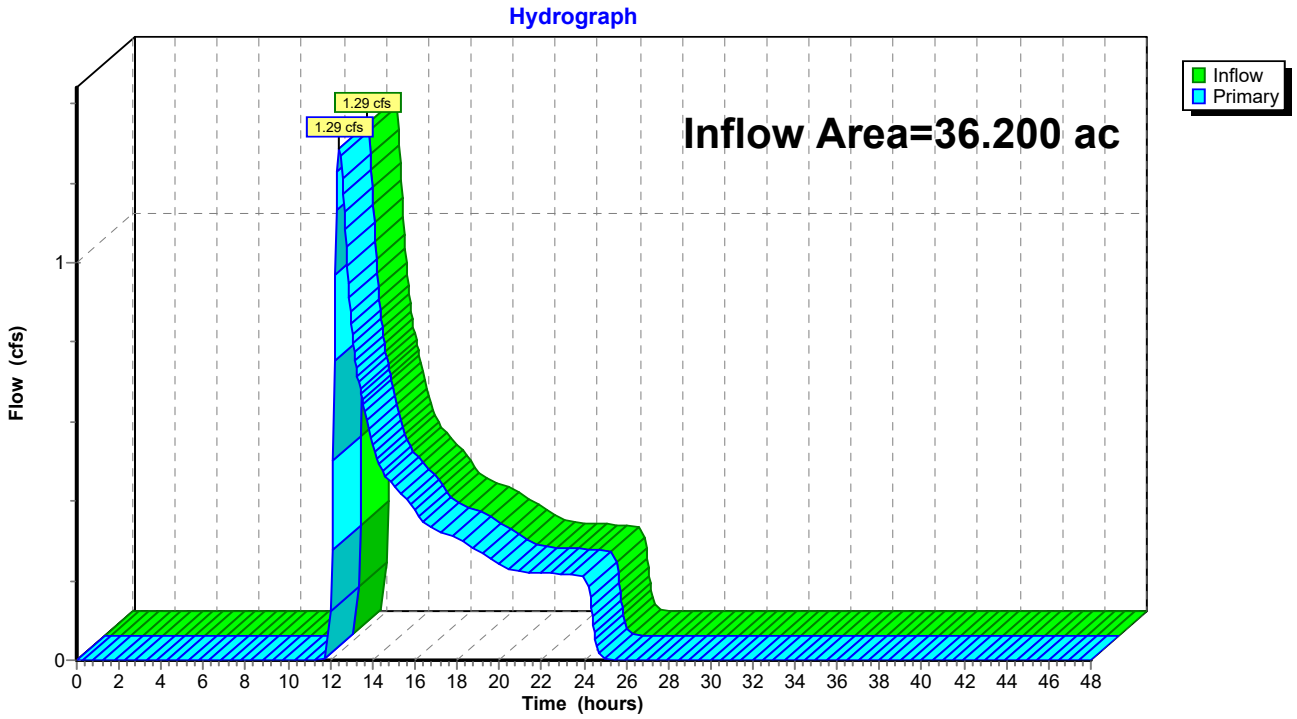


Summary for Link SP30:

Inflow Area = 36.200 ac, 1.23% Impervious, Inflow Depth = 0.13" for 1-year event
Inflow = 1.29 cfs @ 12.43 hrs, Volume= 0.387 af
Primary = 1.29 cfs @ 12.43 hrs, Volume= 0.387 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP30:

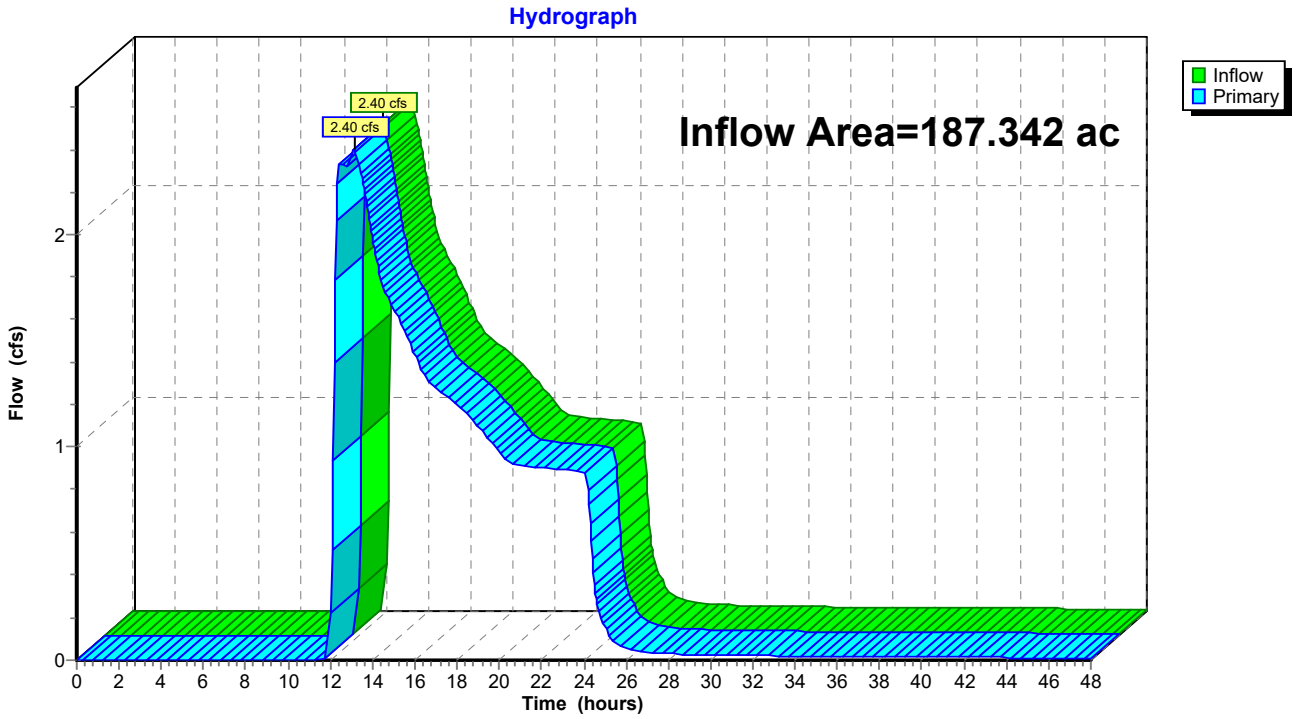


Summary for Link SP34:

Inflow Area = 187.342 ac, 1.98% Impervious, Inflow Depth > 0.09" for 1-year event
Inflow = 2.40 cfs @ 13.11 hrs, Volume= 1.394 af
Primary = 2.40 cfs @ 13.11 hrs, Volume= 1.394 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP34:

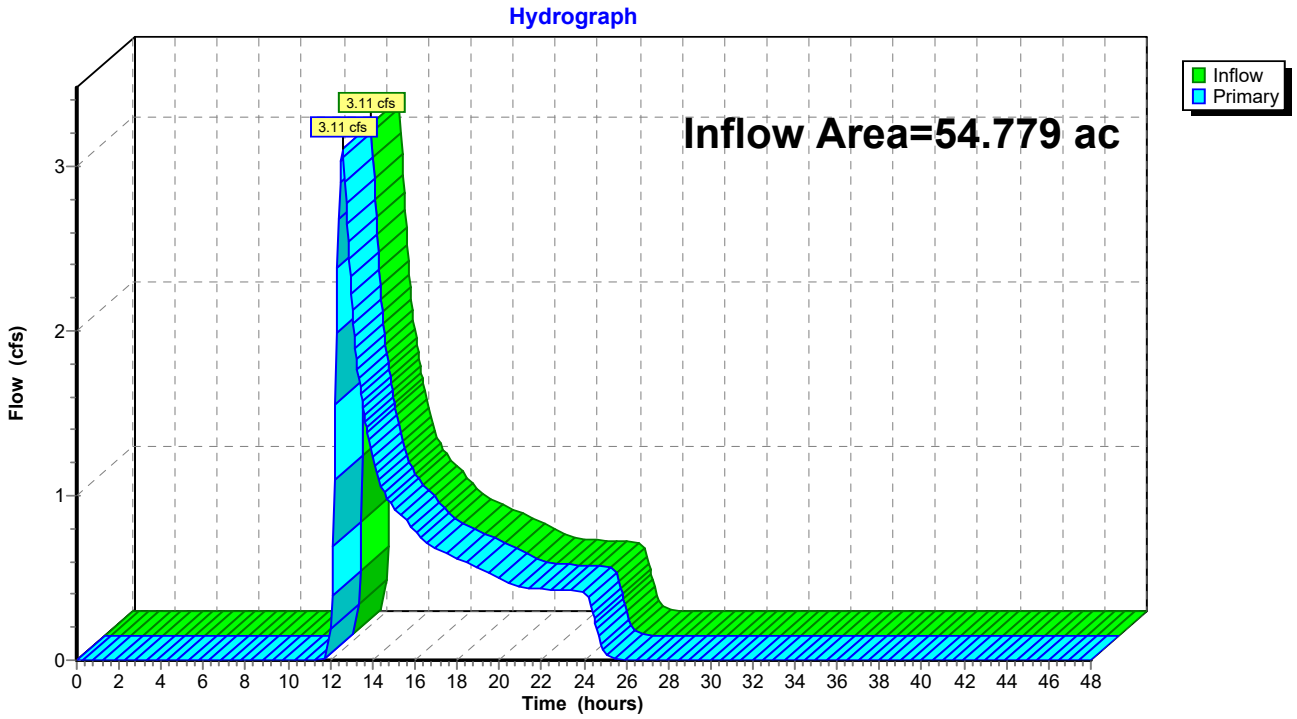


Summary for Link SP35:

Inflow Area = 54.779 ac, 2.01% Impervious, Inflow Depth = 0.18" for 1-year event
Inflow = 3.11 cfs @ 12.57 hrs, Volume= 0.842 af
Primary = 3.11 cfs @ 12.57 hrs, Volume= 0.842 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP35:

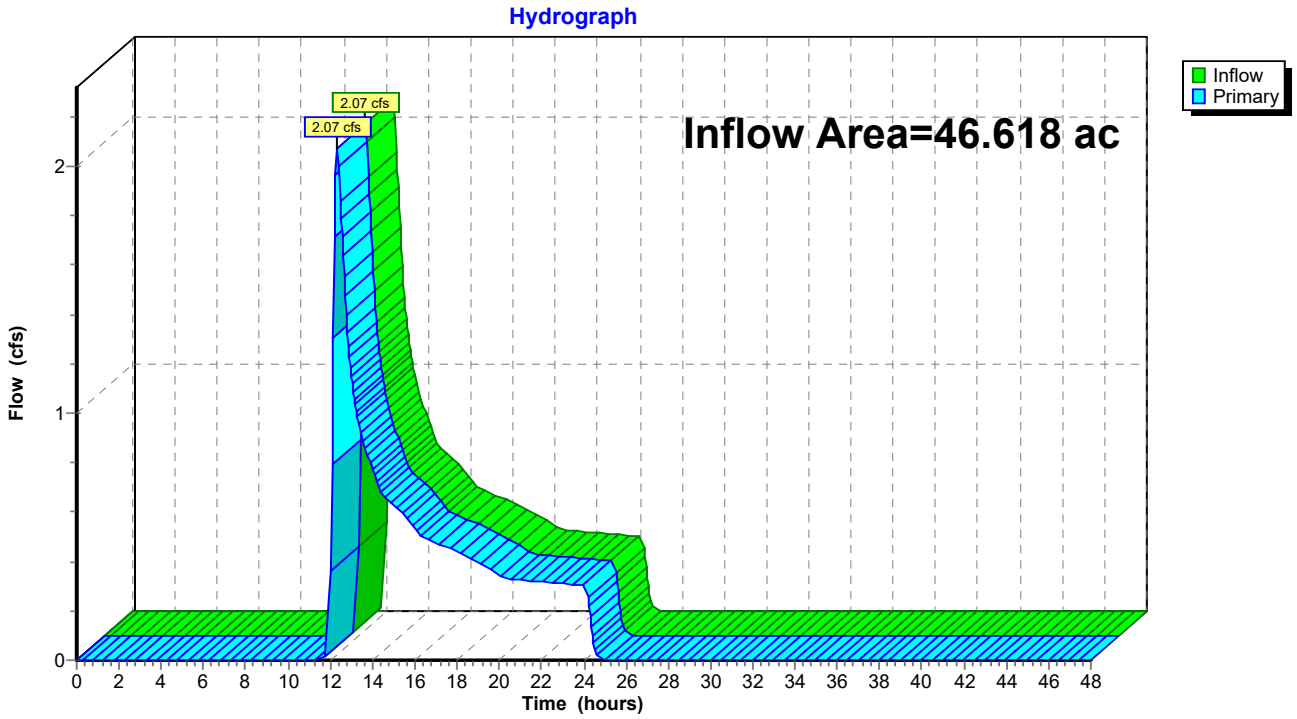


Summary for Link SP36:

Inflow Area = 46.618 ac, 0.00% Impervious, Inflow Depth = 0.14" for 1-year event
Inflow = 2.07 cfs @ 12.32 hrs, Volume= 0.560 af
Primary = 2.07 cfs @ 12.32 hrs, Volume= 0.560 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP36:

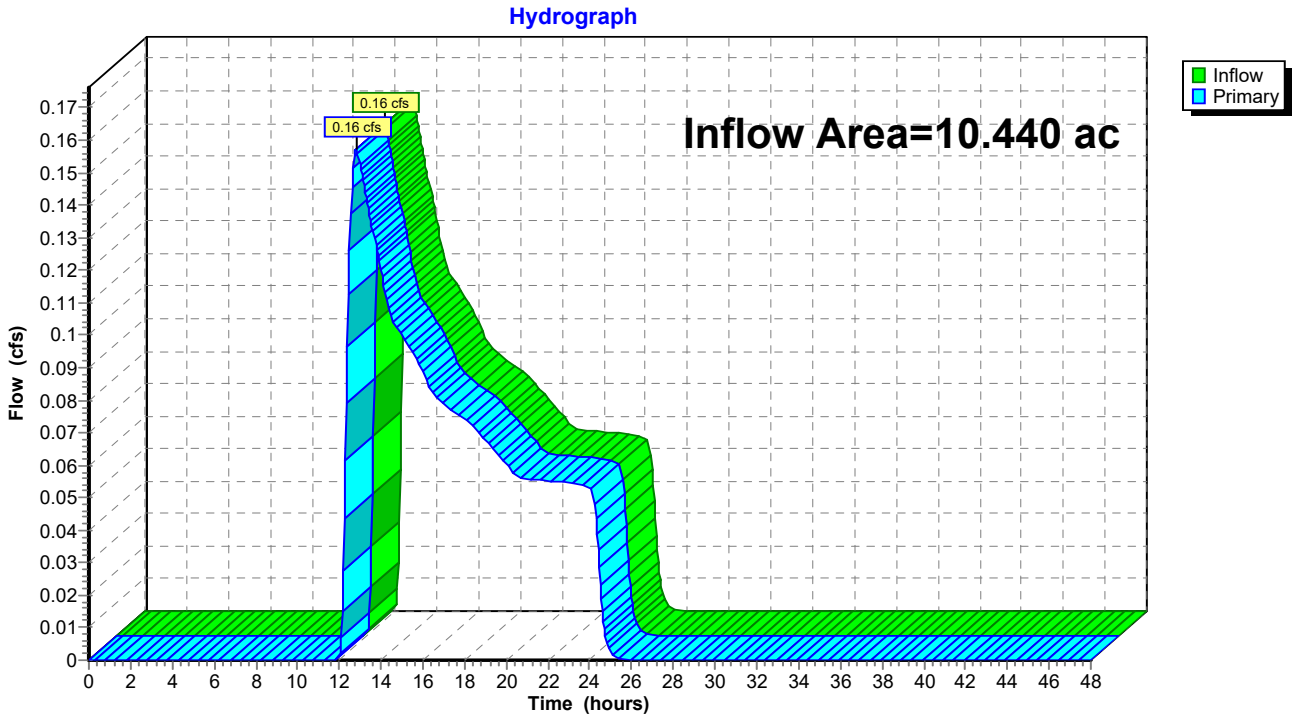


Summary for Link SP37:

Inflow Area = 10.440 ac, 5.80% Impervious, Inflow Depth = 0.09" for 1-year event
Inflow = 0.16 cfs @ 12.80 hrs, Volume= 0.081 af
Primary = 0.16 cfs @ 12.80 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP37:

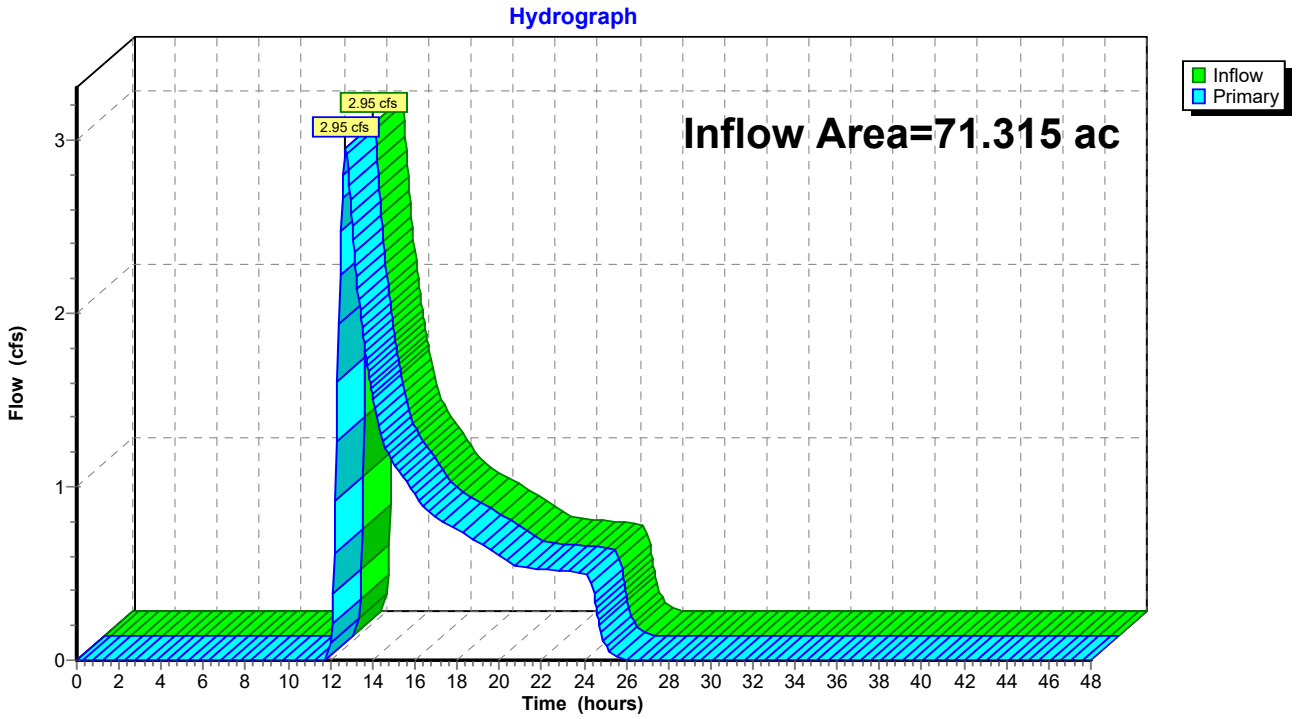


Summary for Link SP38:

Inflow Area = 71.315 ac, 1.11% Impervious, Inflow Depth = 0.16" for 1-year event
Inflow = 2.95 cfs @ 12.72 hrs, Volume= 0.973 af
Primary = 2.95 cfs @ 12.72 hrs, Volume= 0.973 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP38:

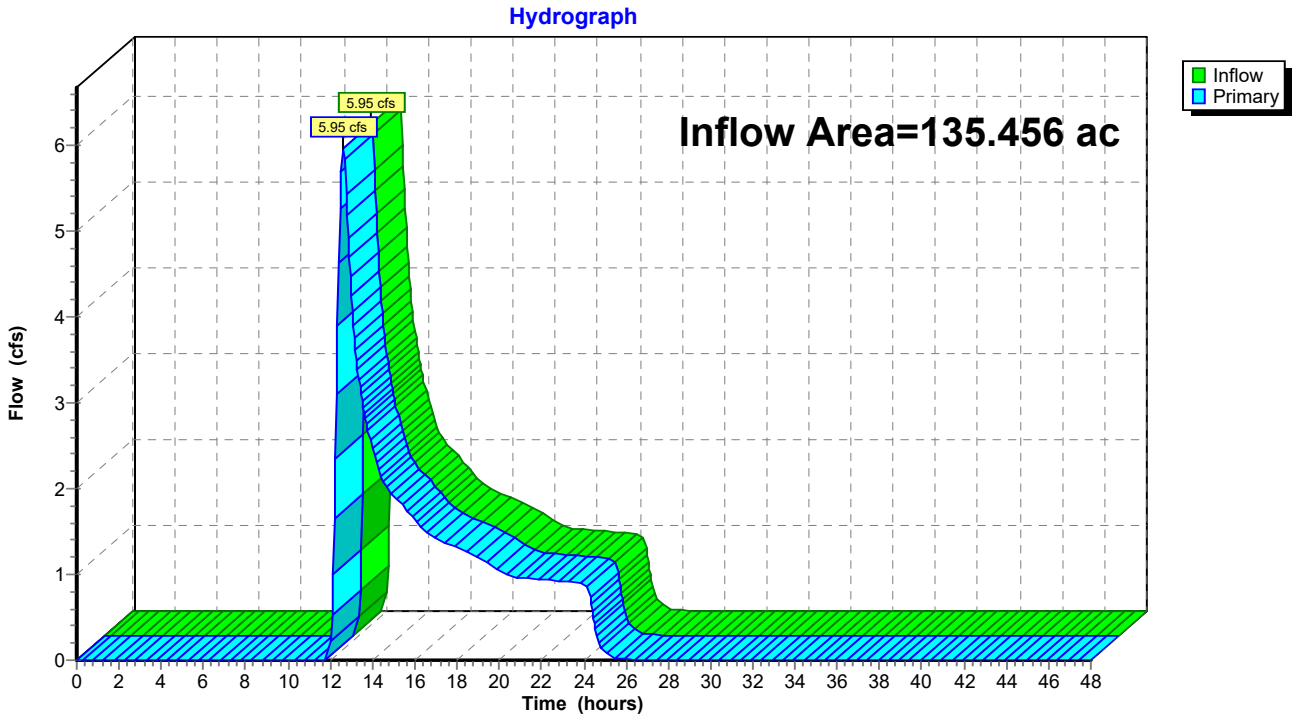


Summary for Link SP39:

Inflow Area = 135.456 ac, 1.64% Impervious, Inflow Depth = 0.15" for 1-year event
Inflow = 5.95 cfs @ 12.59 hrs, Volume= 1.691 af
Primary = 5.95 cfs @ 12.59 hrs, Volume= 1.691 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP39:

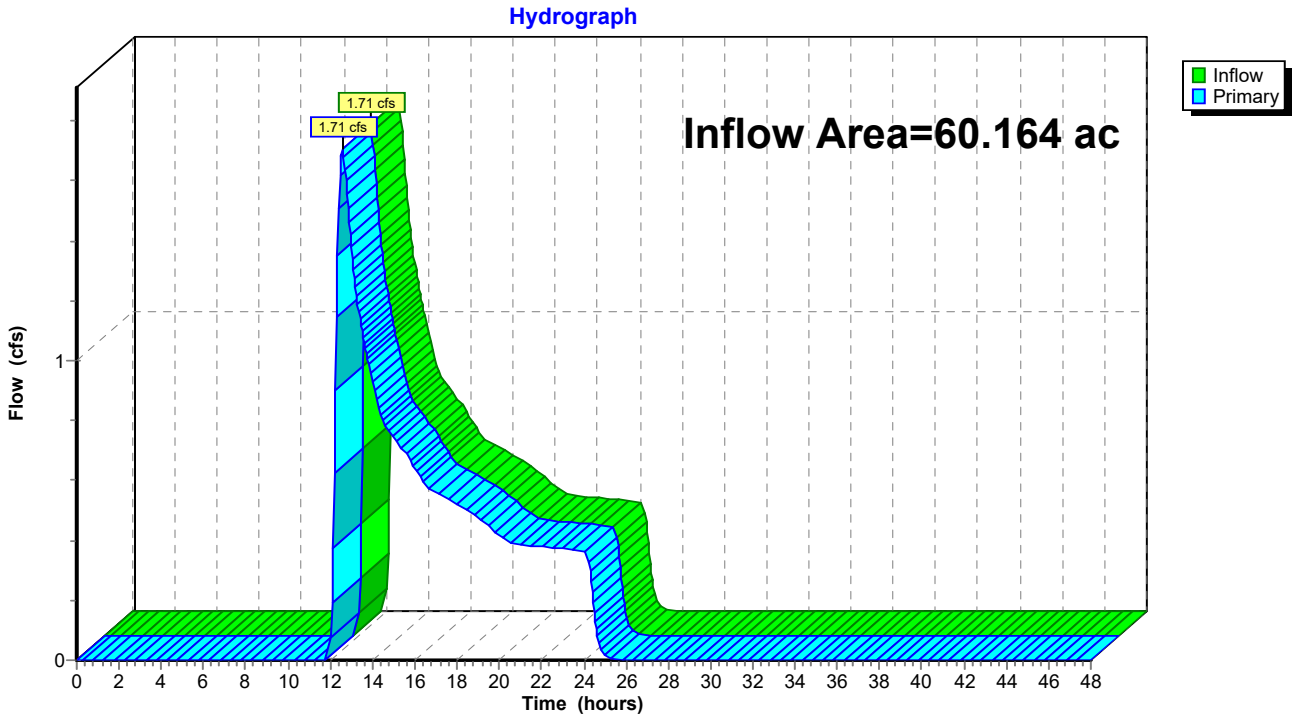


Summary for Link SP41:

Inflow Area = 60.164 ac, 0.00% Impervious, Inflow Depth = 0.13" for 1-year event
Inflow = 1.71 cfs @ 12.55 hrs, Volume= 0.632 af
Primary = 1.71 cfs @ 12.55 hrs, Volume= 0.632 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP41:

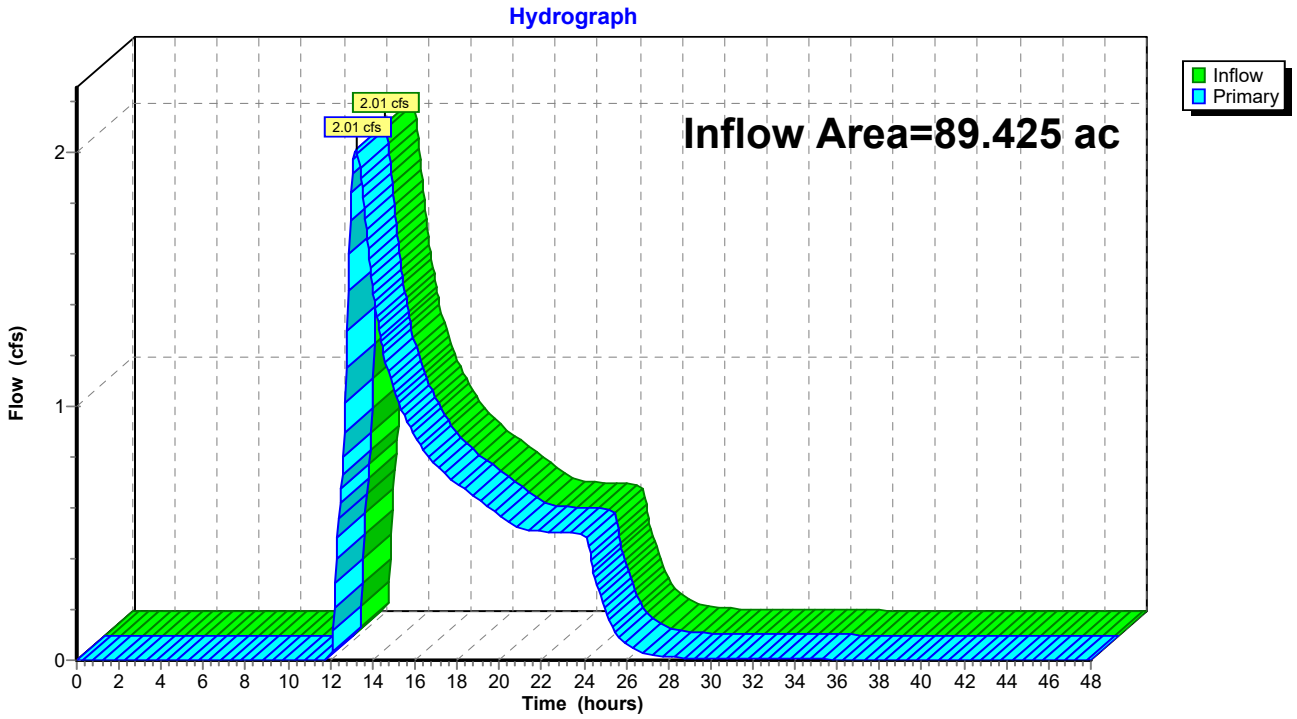


Summary for Link SP42:

Inflow Area = 89.425 ac, 0.58% Impervious, Inflow Depth > 0.11" for 1-year event
Inflow = 2.01 cfs @ 13.21 hrs, Volume= 0.846 af
Primary = 2.01 cfs @ 13.21 hrs, Volume= 0.846 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP42:

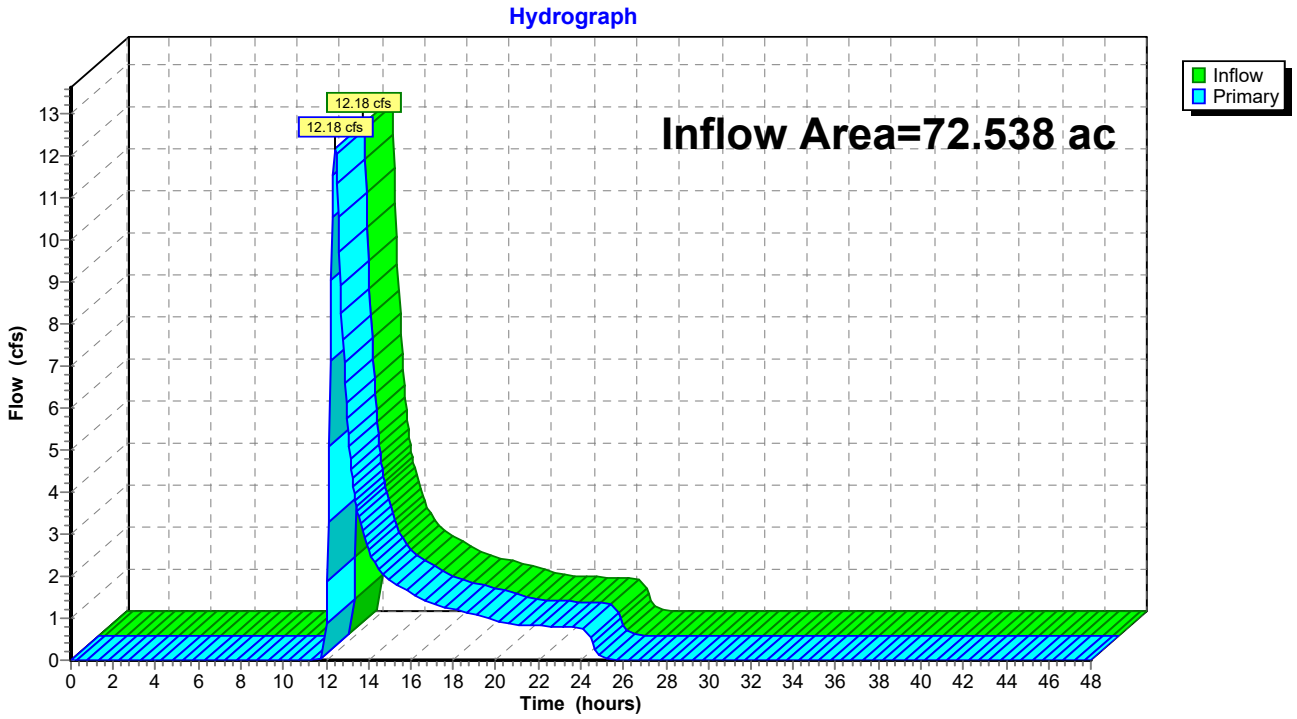


Summary for Link SP48:

Inflow Area = 72.538 ac, 2.48% Impervious, Inflow Depth = 0.34" for 1-year event
Inflow = 12.18 cfs @ 12.43 hrs, Volume= 2.035 af
Primary = 12.18 cfs @ 12.43 hrs, Volume= 2.035 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP48:

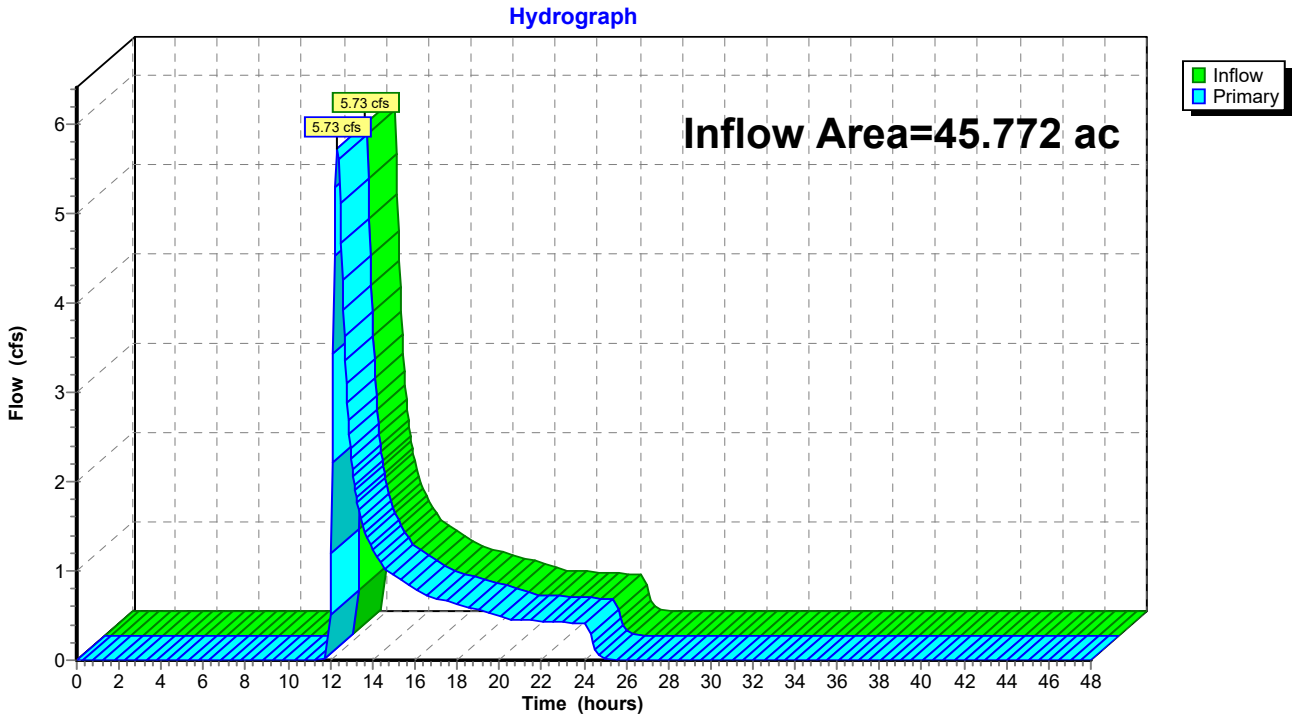


Summary for Link SP50:

Inflow Area = 45.772 ac, 1.25% Impervious, Inflow Depth = 0.25" for 1-year event
Inflow = 5.73 cfs @ 12.33 hrs, Volume= 0.971 af
Primary = 5.73 cfs @ 12.33 hrs, Volume= 0.971 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP50:

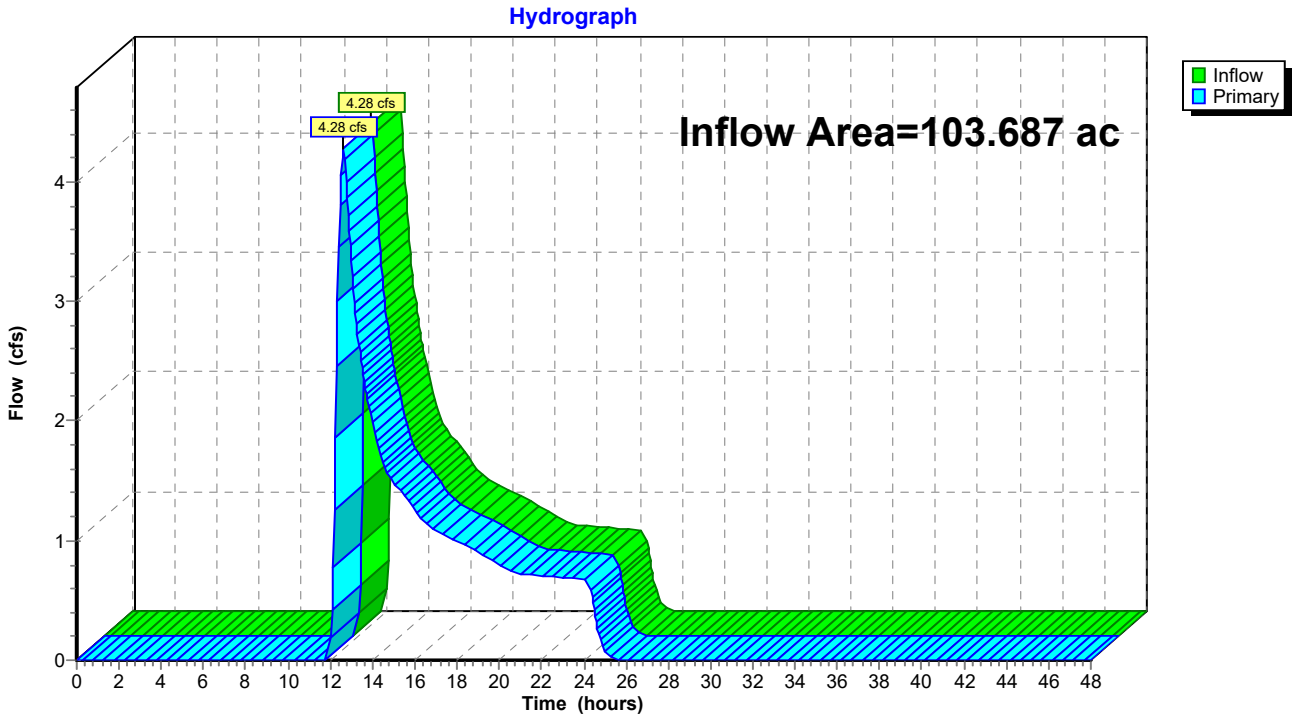


Summary for Link SP51:

Inflow Area = 103.687 ac, 0.70% Impervious, Inflow Depth = 0.15" for 1-year event
Inflow = 4.28 cfs @ 12.61 hrs, Volume= 1.304 af
Primary = 4.28 cfs @ 12.61 hrs, Volume= 1.304 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP51:

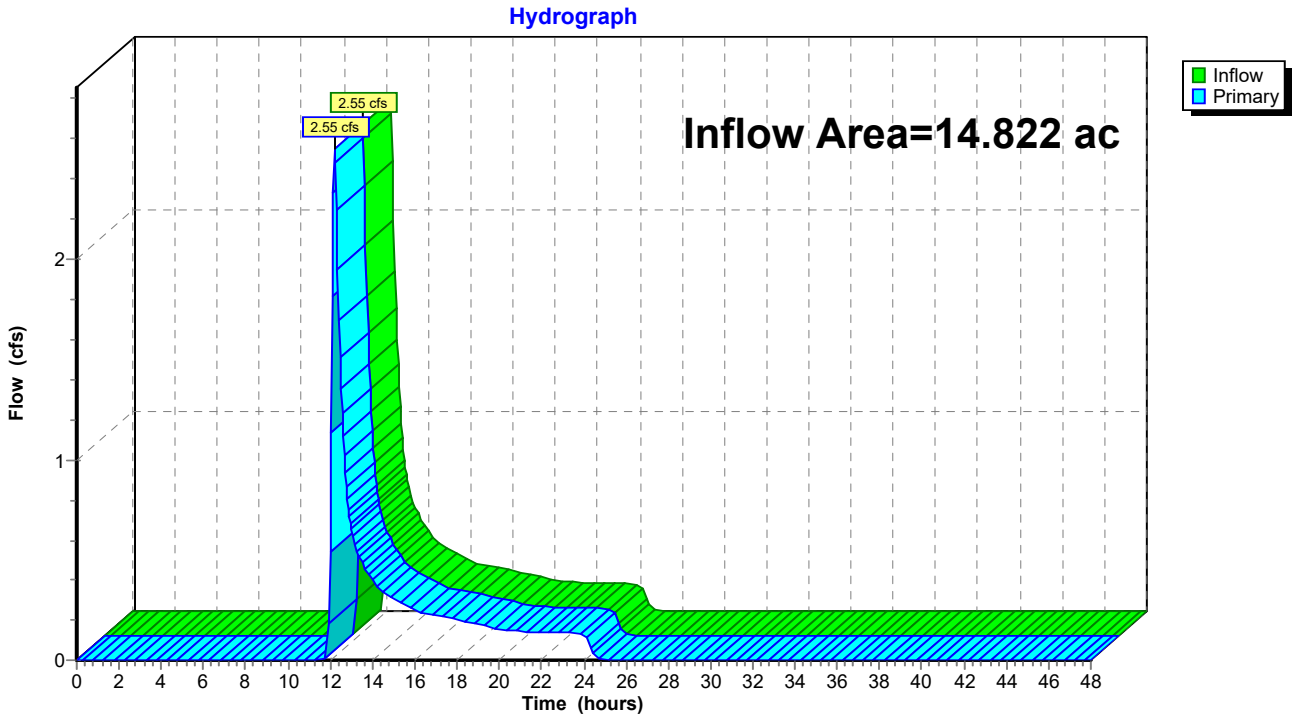


Summary for Link SP52:

Inflow Area = 14.822 ac, 2.79% Impervious, Inflow Depth = 0.27" for 1-year event
Inflow = 2.55 cfs @ 12.21 hrs, Volume= 0.328 af
Primary = 2.55 cfs @ 12.21 hrs, Volume= 0.328 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP52:

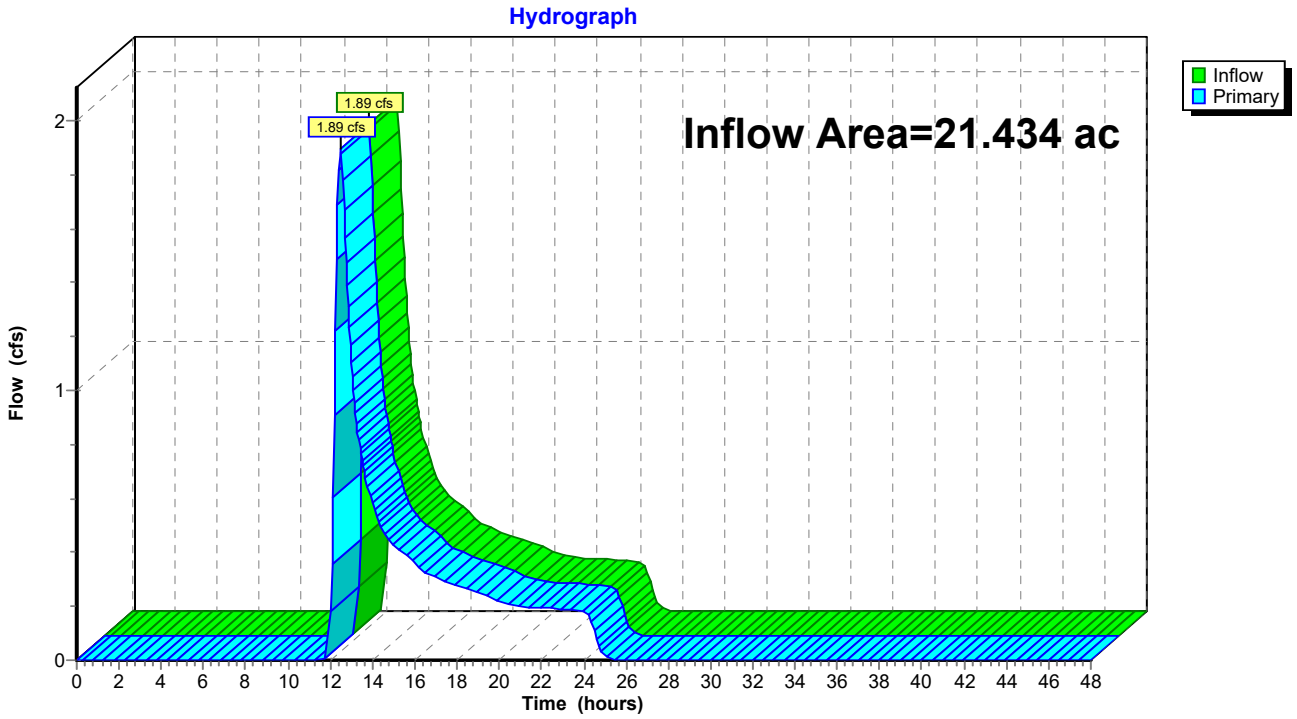


Summary for Link SP53:

Inflow Area = 21.434 ac, 1.80% Impervious, Inflow Depth = 0.23" for 1-year event
Inflow = 1.89 cfs @ 12.48 hrs, Volume= 0.410 af
Primary = 1.89 cfs @ 12.48 hrs, Volume= 0.410 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP53:

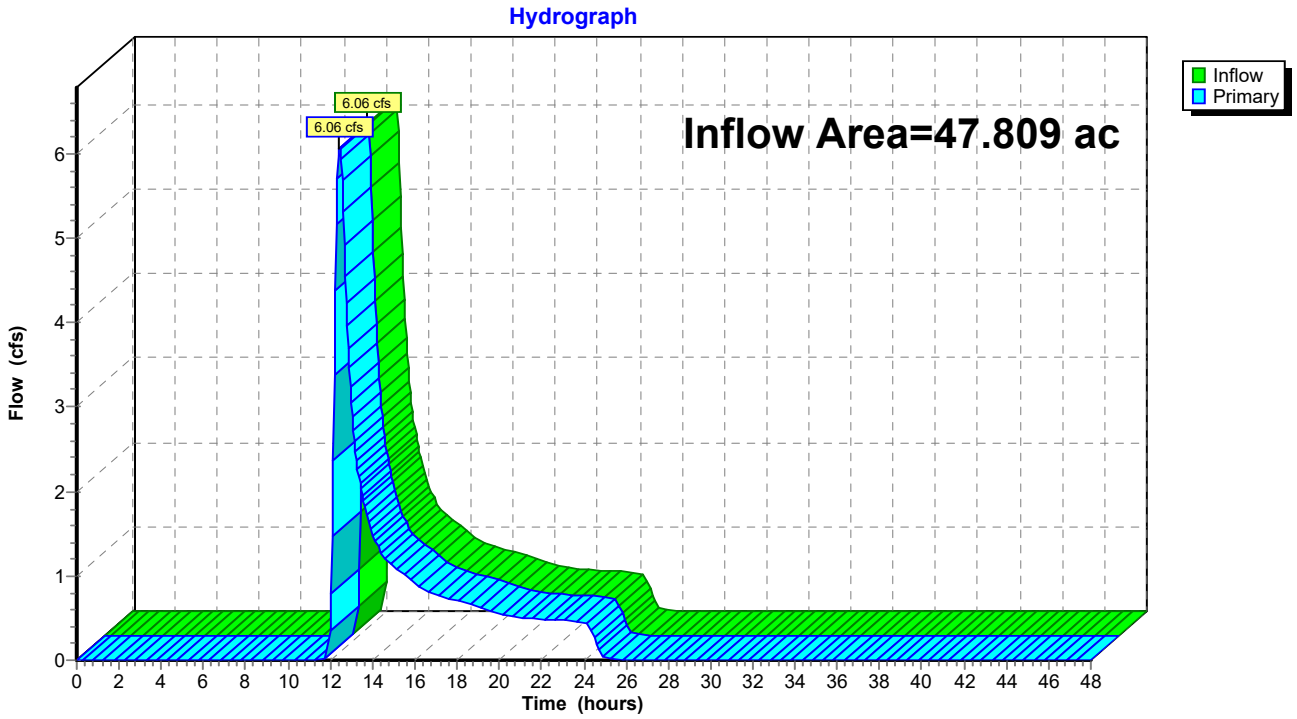


Summary for Link SP54:

Inflow Area = 47.809 ac, 7.82% Impervious, Inflow Depth = 0.28" for 1-year event
Inflow = 6.06 cfs @ 12.45 hrs, Volume= 1.117 af
Primary = 6.06 cfs @ 12.45 hrs, Volume= 1.117 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP54:

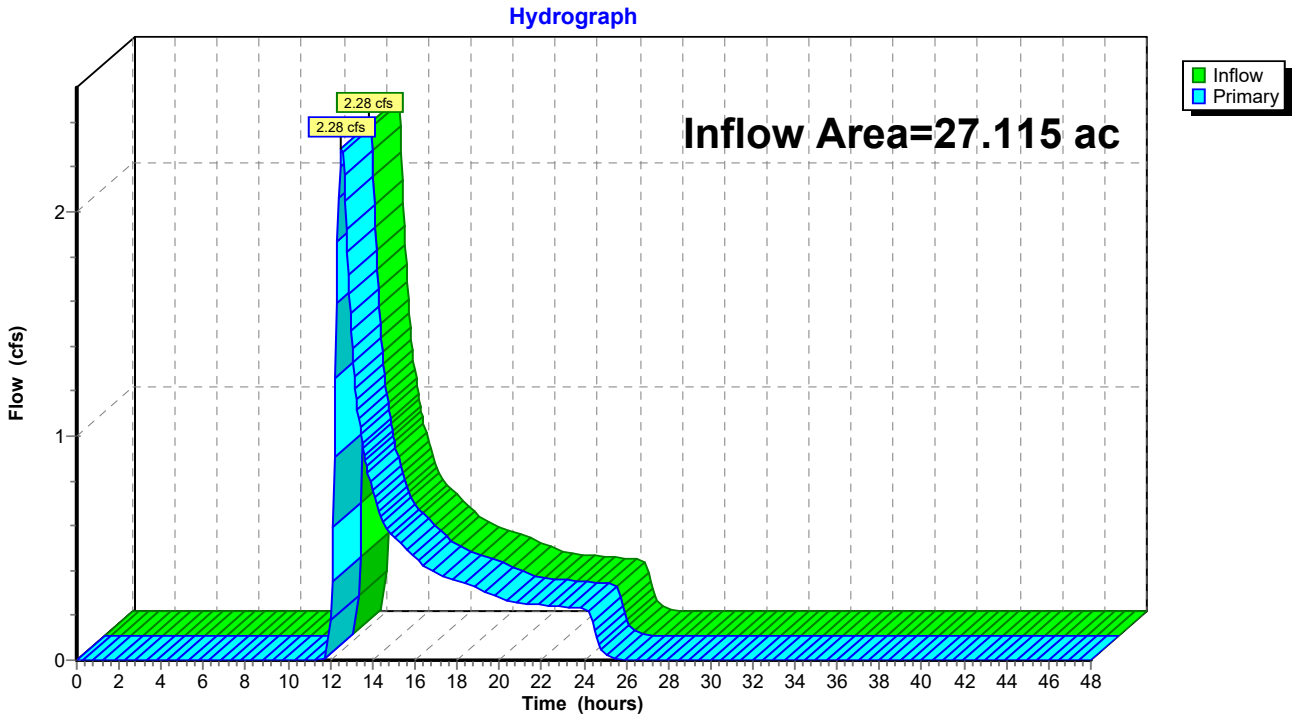


Summary for Link SP55:

Inflow Area = 27.115 ac, 0.71% Impervious, Inflow Depth = 0.23" for 1-year event
Inflow = 2.28 cfs @ 12.54 hrs, Volume= 0.519 af
Primary = 2.28 cfs @ 12.54 hrs, Volume= 0.519 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP55:

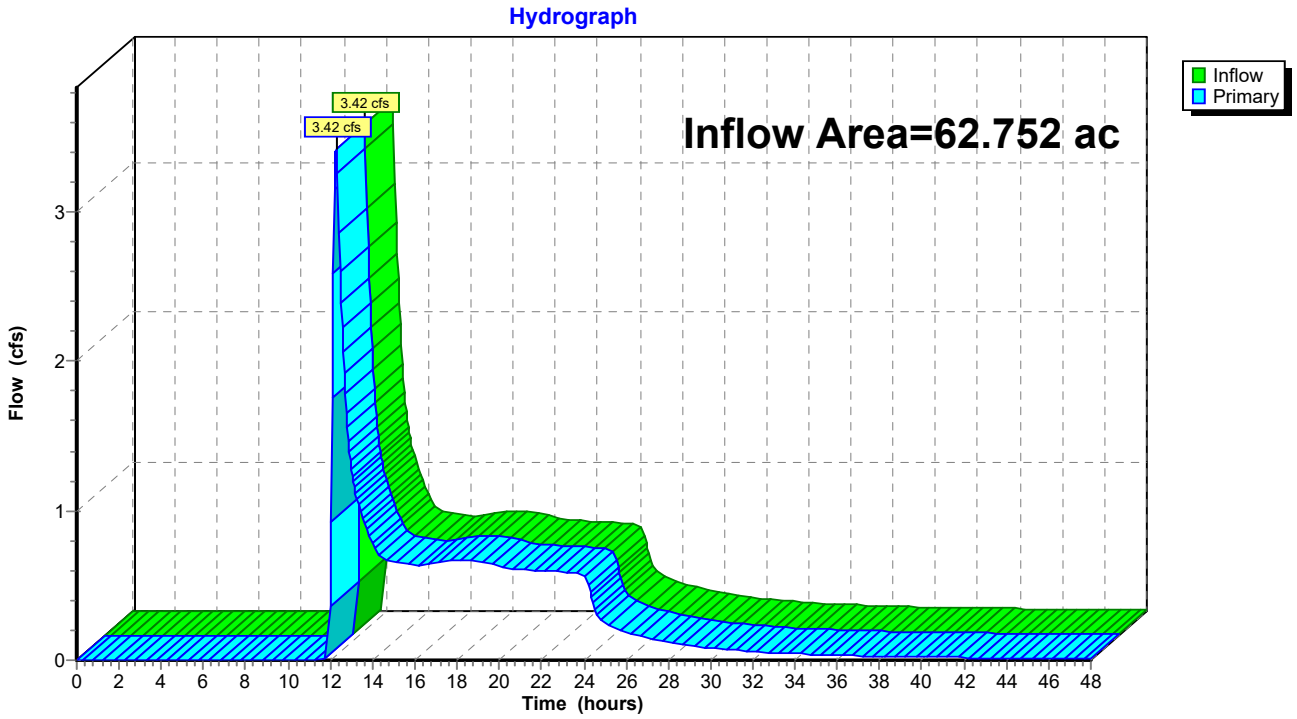


Summary for Link SP56:

Inflow Area = 62.752 ac, 0.00% Impervious, Inflow Depth > 0.18" for 1-year event
Inflow = 3.42 cfs @ 12.27 hrs, Volume= 0.917 af
Primary = 3.42 cfs @ 12.27 hrs, Volume= 0.917 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP56:



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment25.1S: Sub 25.1 Runoff Area=3.422 ac 0.00% Impervious Runoff Depth=1.01"
Flow Length=564' Tc=12.4 min CN=70 Runoff=4.59 cfs 0.287 af

Subcatchment25S: Sub 25 Runoff Area=15.820 ac 0.63% Impervious Runoff Depth=1.18"
Flow Length=1,104' Tc=22.2 min CN=73 Runoff=18.53 cfs 1.555 af

Subcatchment26S: Sub 26 Runoff Area=14.925 ac 5.39% Impervious Runoff Depth=0.75"
Flow Length=1,324' Tc=18.0 min CN=65 Runoff=11.13 cfs 0.935 af

Subcatchment27.1S: Sub 27.1 Runoff Area=3.749 ac 0.00% Impervious Runoff Depth=1.06"
Flow Length=831' Tc=14.7 min CN=71 Runoff=4.91 cfs 0.332 af

Subcatchment27S: Sub 27 Runoff Area=19.044 ac 2.34% Impervious Runoff Depth=0.80"
Flow Length=1,602' Tc=17.8 min CN=66 Runoff=15.57 cfs 1.270 af

Subcatchment28.1S: Sub 28.1 Runoff Area=2.160 ac 0.00% Impervious Runoff Depth=1.06"
Flow Length=409' Tc=11.9 min CN=71 Runoff=3.15 cfs 0.191 af

Subcatchment28S: Sub 28 Runoff Area=19.213 ac 0.59% Impervious Runoff Depth=0.75"
Flow Length=1,727' Tc=27.4 min UI Adjusted CN=65 Runoff=10.83 cfs 1.204 af

Subcatchment29S: Sub 29 Runoff Area=19.201 ac 1.25% Impervious Runoff Depth=0.62"
Flow Length=1,656' Tc=26.3 min CN=62 Runoff=8.26 cfs 0.985 af

Subcatchment30.1S: Sub 30.1 Runoff Area=4.003 ac 0.00% Impervious Runoff Depth=1.06"
Flow Length=1,131' Tc=29.7 min CN=71 Runoff=3.40 cfs 0.355 af

Subcatchment30S: Sub 30 Runoff Area=32.197 ac 1.38% Impervious Runoff Depth=0.66"
Flow Length=2,349' Tc=29.2 min CN=63 Runoff=14.29 cfs 1.770 af

Subcatchment31.1S: Sub 31.1 Runoff Area=0.925 ac 0.00% Impervious Runoff Depth=1.01"
Flow Length=267' Tc=10.3 min CN=70 Runoff=1.34 cfs 0.078 af

Subcatchment31S: Sub 31 Runoff Area=24.402 ac 0.00% Impervious Runoff Depth=0.62"
Flow Length=2,354' Tc=30.5 min CN=62 Runoff=9.46 cfs 1.252 af

Subcatchment32.1S: 32.1S Runoff Area=5.376 ac 0.00% Impervious Runoff Depth=1.01"
Flow Length=867' Tc=20.0 min CN=70 Runoff=5.54 cfs 0.452 af

Subcatchment32S: Sub 32 Runoff Area=39.541 ac 7.07% Impervious Runoff Depth=0.66"
Flow Length=2,402' Tc=27.3 min CN=63 Runoff=18.41 cfs 2.173 af

Subcatchment33.1S: 33.1S Runoff Area=12.768 ac 1.41% Impervious Runoff Depth=1.18"
Flow Length=1,561' Tc=36.2 min CN=73 Runoff=10.75 cfs 1.255 af

Subcatchment33S: Sub 33 Runoff Area=78.535 ac 0.56% Impervious Runoff Depth=0.42"
Flow Length=1,749' Tc=22.2 min CN=57 Runoff=19.73 cfs 2.721 af

Subcatchment34S: Sub 34 Runoff Area=25.795 ac 1.16% Impervious Runoff Depth=0.62"
Flow Length=1,380' Tc=24.0 min CN=62 Runoff=11.86 cfs 1.323 af

Subcatchment35S: Sub 35 Runoff Area=54.779 ac 2.01% Impervious Runoff Depth=0.75"
Flow Length=3,081' Tc=40.4 min CN=65 Runoff=23.34 cfs 3.433 af

Subcatchment36S: Sub 36 Runoff Area=46.618 ac 0.00% Impervious Runoff Depth=0.66"
Flow Length=1,996' Tc=23.3 min CN=63 Runoff=24.27 cfs 2.562 af

Subcatchment37S: Sub 37 Runoff Area=10.440 ac 5.80% Impervious Runoff Depth=0.53"
Flow Length=1,926' Tc=33.1 min CN=60 Runoff=3.02 cfs 0.462 af

Subcatchment38S: Sub 38 Runoff Area=71.315 ac 1.11% Impervious Runoff Depth=0.71"
Flow Length=3,404' Tc=47.6 min CN=64 Runoff=24.59 cfs 4.190 af

Subcatchment39S: Sub 39 Runoff Area=114.576 ac 0.49% Impervious Runoff Depth=0.62"
Flow Length=2,852' Tc=30.0 min CN=62 Runoff=44.91 cfs 5.877 af

Subcatchment40S: Sub 40 Runoff Area=20.880 ac 7.94% Impervious Runoff Depth=0.95"
Flow Length=1,917' Tc=28.9 min CN=69 Runoff=15.72 cfs 1.660 af

Subcatchment41S: Sub 41 Runoff Area=60.164 ac 0.00% Impervious Runoff Depth=0.62"
Flow Length=2,626' Tc=33.1 min CN=62 Runoff=21.94 cfs 3.086 af

Subcatchment42.1S: 42.1P Runoff Area=1.588 ac 0.00% Impervious Runoff Depth=1.06"
Tc=6.0 min CN=71 Runoff=2.90 cfs 0.141 af

Subcatchment42.2S: 42.2P Runoff Area=3.269 ac 0.00% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=67 Runoff=4.62 cfs 0.232 af

Subcatchment42S: Sub 42 Runoff Area=45.032 ac 0.00% Impervious Runoff Depth=0.53"
Flow Length=1,067' Tc=27.0 min CN=60 Runoff=15.07 cfs 1.994 af

Subcatchment48S: Sub 48 Runoff Area=72.538 ac 2.48% Impervious Runoff Depth=1.06"
Flow Length=4,007' Tc=38.1 min CN=71 Runoff=51.67 cfs 6.430 af

Subcatchment49.1S: Sub 49.1 Runoff Area=4.740 ac 6.79% Impervious Runoff Depth=0.75"
Tc=10.0 min CN=65 Runoff=4.84 cfs 0.297 af

Subcatchment49.2S: 49.2S Runoff Area=3.533 ac 0.14% Impervious Runoff Depth=1.01"
Tc=6.0 min CN=70 Runoff=6.07 cfs 0.297 af

Subcatchment49S: Sub 49 Runoff Area=31.263 ac 0.62% Impervious Runoff Depth=0.75"
Flow Length=2,999' Tc=38.0 min CN=65 Runoff=13.91 cfs 1.959 af

Subcatchment50S: Sub 50 Runoff Area=45.772 ac 1.25% Impervious Runoff Depth=0.90"
Flow Length=2,533' Tc=29.4 min CN=68 Runoff=31.57 cfs 3.438 af

Subcatchment51.1S: 51.1S Runoff Area=8.131 ac 0.00% Impervious Runoff Depth=1.18"
Flow Length=1,025' Tc=26.3 min CN=73 Runoff=8.53 cfs 0.799 af

Subcatchment51S: Sub 51 Runoff Area=95.556 ac 0.76% Impervious Runoff Depth=0.71"
Flow Length=3,172' Tc=41.1 min CN=64 Runoff=36.64 cfs 5.615 af

Subcatchment52.1S: 52.1S Runoff Area=0.805 ac 0.00% Impervious Runoff Depth=1.06"
Tc=0.0 min CN=71 Runoff=1.76 cfs 0.071 af

Subcatchment52S: Sub 52 Runoff Area=14.017 ac 2.95% Impervious Runoff Depth=0.95"
Flow Length=1,182' Tc=22.0 min CN=69 Runoff=12.69 cfs 1.114 af

Subcatchment53S: Sub 53 Runoff Area=21.434 ac 1.80% Impervious Runoff Depth=0.85"
Flow Length=2,555' Tc=37.9 min CN=67 Runoff=11.37 cfs 1.518 af

Subcatchment54S: Sub 54 Runoff Area=47.809 ac 7.82% Impervious Runoff Depth=0.95"
Flow Length=3,546' Tc=37.2 min UI Adjusted CN=69 Runoff=30.10 cfs 3.801 af

Subcatchment55S: Sub 55 Runoff Area=27.115 ac 0.71% Impervious Runoff Depth=0.85"
Flow Length=2,240' Tc=41.1 min CN=67 Runoff=13.57 cfs 1.921 af

Subcatchment56.1S: 56.1S Runoff Area=27.373 ac 0.00% Impervious Runoff Depth=1.01"
Flow Length=1,864' Tc=23.1 min CN=70 Runoff=25.68 cfs 2.300 af

Subcatchment56S: Sub 56 Runoff Area=35.379 ac 0.00% Impervious Runoff Depth=0.80"
Flow Length=1,907' Tc=23.9 min CN=66 Runoff=23.94 cfs 2.360 af

Reach 33R: Avg. Flow Depth=0.84' Max Vel=2.37 fps Inflow=7.80 cfs 1.323 af
n=0.100 L=1,875.0' S=0.0597 '/' Capacity=10.60 cfs Outflow=7.28 cfs 1.323 af

Reach 39R: Avg. Flow Depth=0.87' Max Vel=3.19 fps Inflow=15.72 cfs 1.660 af
n=0.100 L=1,110.0' S=0.0991 '/' Capacity=86.68 cfs Outflow=14.73 cfs 1.660 af

Reach 42R: S-NSD-16 Avg. Flow Depth=1.01' Max Vel=2.54 fps Inflow=13.91 cfs 1.959 af
n=0.100 L=1,790.0' S=0.0531 '/' Capacity=51.95 cfs Outflow=12.08 cfs 1.959 af

Pond 25.1P: 25.1P Peak Elev=605.04' Storage=6,104 cf Inflow=4.59 cfs 0.287 af
Primary=0.33 cfs 0.198 af Secondary=0.00 cfs 0.000 af Outflow=0.33 cfs 0.198 af

Pond 27.1P: 27.1P Peak Elev=553.14' Storage=10,490 cf Inflow=4.91 cfs 0.332 af
Primary=0.15 cfs 0.119 af Secondary=0.00 cfs 0.000 af Outflow=0.15 cfs 0.119 af

Pond 28.1P: 28.1P Peak Elev=559.67' Storage=6,649 cf Inflow=3.15 cfs 0.191 af
Primary=0.07 cfs 0.055 af Secondary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.055 af

Pond 30.1P: 30.1P Peak Elev=461.21' Storage=10,254 cf Inflow=3.40 cfs 0.355 af
Discarded=0.02 cfs 0.046 af Primary=0.20 cfs 0.121 af Secondary=0.00 cfs 0.000 af Outflow=0.21 cfs 0.167 af

Pond 31.1P: 31.1P Peak Elev=510.66' Storage=2,621 cf Inflow=1.34 cfs 0.078 af
Discarded=0.02 cfs 0.051 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.051 af

Pond 32.1P: 32.1P Peak Elev=553.30' Storage=15,199 cf Inflow=5.54 cfs 0.452 af
Primary=0.15 cfs 0.173 af Secondary=0.00 cfs 0.000 af Outflow=0.15 cfs 0.173 af

Pond 33.1P: 33.1P Peak Elev=591.35' Storage=40,913 cf Inflow=10.75 cfs 1.255 af
Primary=0.35 cfs 0.758 af Secondary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.758 af

Pond 34P: VAN EPPS RD CULVERT Peak Elev=583.42' Storage=4,265 cf Inflow=11.86 cfs 1.323 af
Primary=7.80 cfs 1.323 af Secondary=0.00 cfs 0.000 af Outflow=7.80 cfs 1.323 af

Pond 42P: 42P Peak Elev=459.42' Storage=16,219 cf Inflow=7.51 cfs 0.372 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 49.1P: 49.1P Peak Elev=533.82' Storage=12,939 cf Inflow=4.84 cfs 0.297 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 49.2P: 49.2S Peak Elev=523.13' Storage=5,720 cf Inflow=6.07 cfs 0.297 af
Primary=0.43 cfs 0.221 af Secondary=0.00 cfs 0.000 af Outflow=0.43 cfs 0.221 af

Pond 51.1P: 51.1P Peak Elev=605.30' Storage=29,832 cf Inflow=8.53 cfs 0.799 af
Primary=0.23 cfs 0.179 af Secondary=0.00 cfs 0.000 af Outflow=0.23 cfs 0.179 af

Pond 52.1P: 52.1P Peak Elev=648.77' Storage=3,108 cf Inflow=1.76 cfs 0.071 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 56.1P: 56.1P Peak Elev=417.13' Storage=57,652 cf Inflow=25.68 cfs 2.300 af
Primary=1.30 cfs 1.892 af Secondary=0.00 cfs 0.000 af Outflow=1.30 cfs 1.892 af

Link SP25: Inflow=18.53 cfs 1.753 af
Primary=18.53 cfs 1.753 af

Link SP26: Inflow=11.13 cfs 0.935 af
Primary=11.13 cfs 0.935 af

Link SP27: Inflow=15.57 cfs 1.389 af
Primary=15.57 cfs 1.389 af

Link SP28: Inflow=10.83 cfs 1.259 af
Primary=10.83 cfs 1.259 af

Link SP29: Inflow=8.26 cfs 0.985 af
Primary=8.26 cfs 0.985 af

Link SP30: Inflow=14.29 cfs 1.891 af
Primary=14.29 cfs 1.891 af

Link SP34: Inflow=47.38 cfs 8.401 af
Primary=47.38 cfs 8.401 af

Link SP35: Inflow=23.34 cfs 3.433 af
Primary=23.34 cfs 3.433 af

Link SP36: Inflow=24.27 cfs 2.562 af
Primary=24.27 cfs 2.562 af

Link SP37: Inflow=3.02 cfs 0.462 af
Primary=3.02 cfs 0.462 af

Link SP38: Inflow=24.59 cfs 4.190 af
Primary=24.59 cfs 4.190 af

Link SP39: Inflow=57.34 cfs 7.536 af
Primary=57.34 cfs 7.536 af

Link SP41: Inflow=21.94 cfs 3.086 af
Primary=21.94 cfs 3.086 af

Link SP42: Inflow=19.06 cfs 4.175 af
Primary=19.06 cfs 4.175 af

Link SP48: Inflow=51.67 cfs 6.430 af
Primary=51.67 cfs 6.430 af

Link SP50: Inflow=31.57 cfs 3.438 af
Primary=31.57 cfs 3.438 af

Link SP51: Inflow=36.64 cfs 5.793 af
Primary=36.64 cfs 5.793 af

Link SP52: Inflow=12.69 cfs 1.114 af
Primary=12.69 cfs 1.114 af

Link SP53: Inflow=11.37 cfs 1.518 af
Primary=11.37 cfs 1.518 af

Link SP54: Inflow=30.10 cfs 3.801 af
Primary=30.10 cfs 3.801 af

Link SP55: Inflow=13.57 cfs 1.921 af
Primary=13.57 cfs 1.921 af

Link SP56: Inflow=24.07 cfs 4.252 af
Primary=24.07 cfs 4.252 af

Total Runoff Area = 1,185.202 ac Runoff Volume = 73.695 af Average Runoff Depth = 0.75"
98.40% Pervious = 1,166.275 ac 1.60% Impervious = 18.927 ac

Summary for Subcatchment 25.1S: Sub 25.1

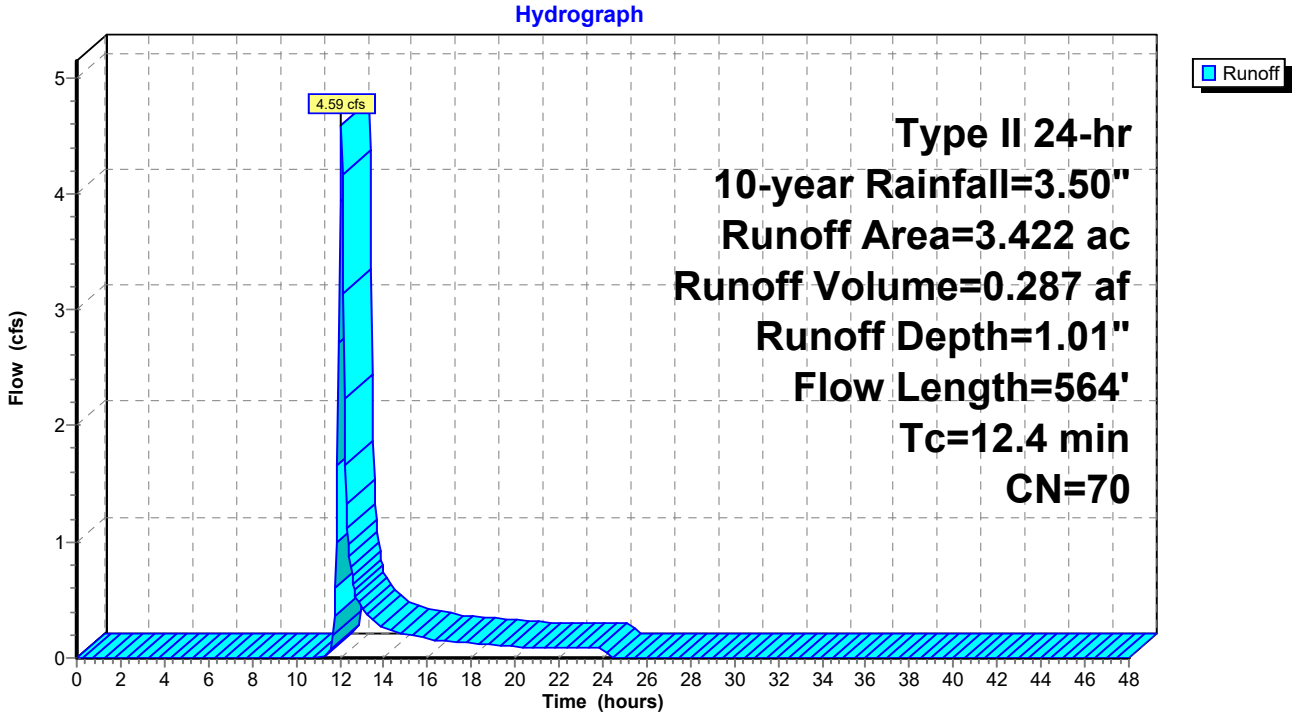
Runoff = 4.59 cfs @ 12.06 hrs, Volume= 0.287 af, Depth= 1.01"
Routed to Pond 25.1P : 25.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
2.622	71	Meadow, non-grazed, HSG C
0.225	96	Gravel surface, HSG C
0.575	58	Meadow, non-grazed, HSG B
3.422	70	Weighted Average
3.422		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	100	0.1080	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.5	35	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.3	429	0.0260	1.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.4	564	Total			

Subcatchment 25.1S: Sub 25.1



Summary for Subcatchment 25S: Sub 25

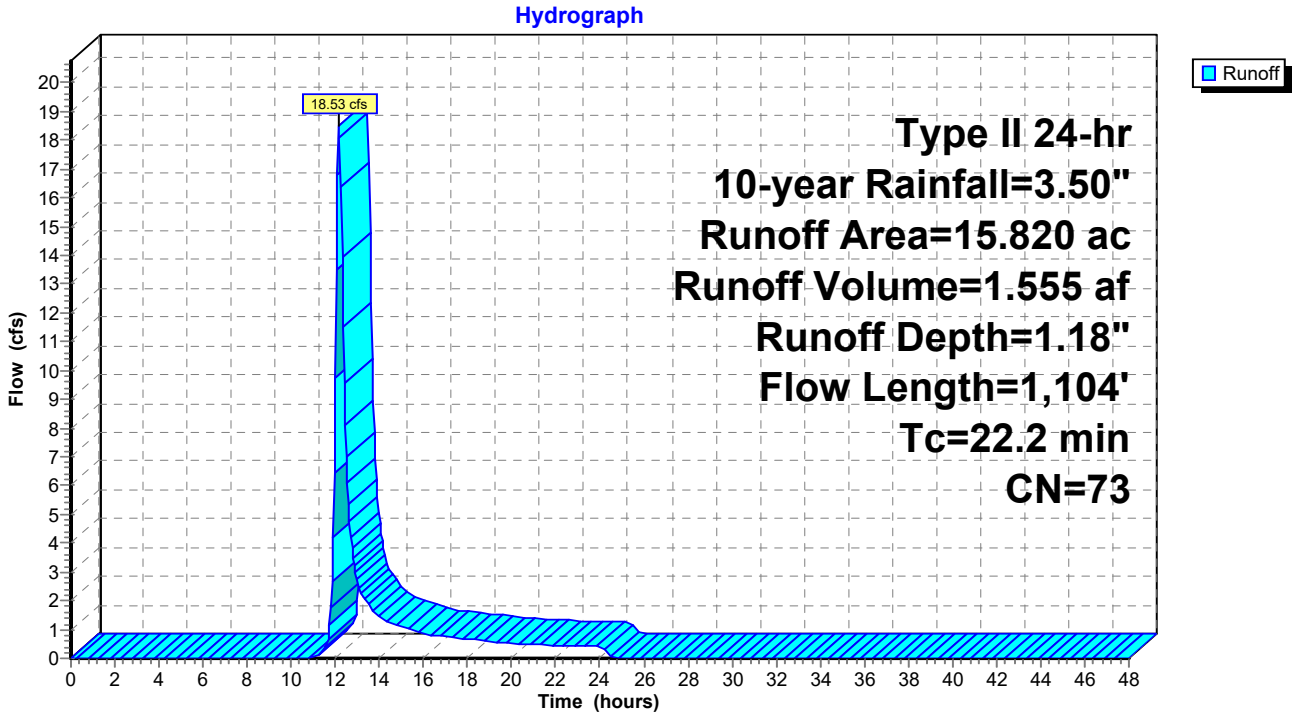
Runoff = 18.53 cfs @ 12.17 hrs, Volume= 1.555 af, Depth= 1.18"
Routed to Link SP25 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.050	48	Brush, Good, HSG B
0.279	65	Brush, Good, HSG C
0.181	73	Brush, Good, HSG D
0.099	98	Unconnected roofs, HSG D
0.210	58	Meadow, non-grazed, HSG B
10.133	71	Meadow, non-grazed, HSG C
3.694	78	Meadow, non-grazed, HSG D
0.455	74	>75% Grass cover, Good, HSG C
0.497	80	>75% Grass cover, Good, HSG D
0.020	70	Woods, Good, HSG C
0.202	96	Gravel surface, HSG D
15.820	73	Weighted Average
15.721		99.37% Pervious Area
0.099		0.63% Impervious Area
0.099		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0430	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.3	717	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	287		1.76		**Direct Entry, CF**
22.2	1,104	Total			

Subcatchment 25S: Sub 25



Summary for Subcatchment 26S: Sub 26

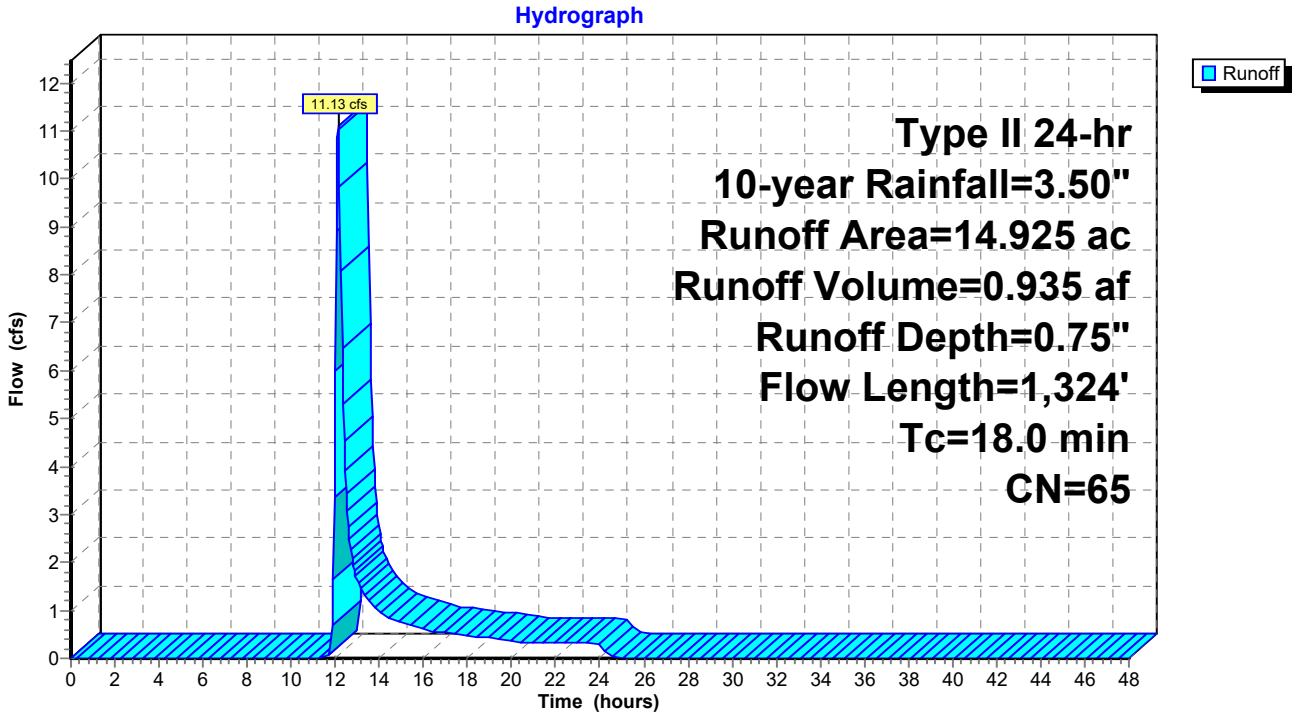
Runoff = 11.13 cfs @ 12.13 hrs, Volume= 0.935 af, Depth= 0.75"
Routed to Link SP26 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	0.114	48	Brush, Good, HSG B
	0.057	96	Gravel surface, HSG D
*	0.804	98	Impervious
	6.796	58	Meadow, non-grazed, HSG B
	2.989	71	Meadow, non-grazed, HSG C
	2.988	61	>75% Grass cover, Good, HSG B
	0.965	74	>75% Grass cover, Good, HSG C
	0.212	78	Meadow, non-grazed, HSG D
	14.925	65	Weighted Average
	14.121		94.61% Pervious Area
	0.804		5.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0280	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.2	340	0.1340	2.56		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	259	0.0540	1.63		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	625		3.06		**Direct Entry, CF**
18.0	1,324	Total			

Subcatchment 26S: Sub 26



Summary for Subcatchment 27.1S: Sub 27.1

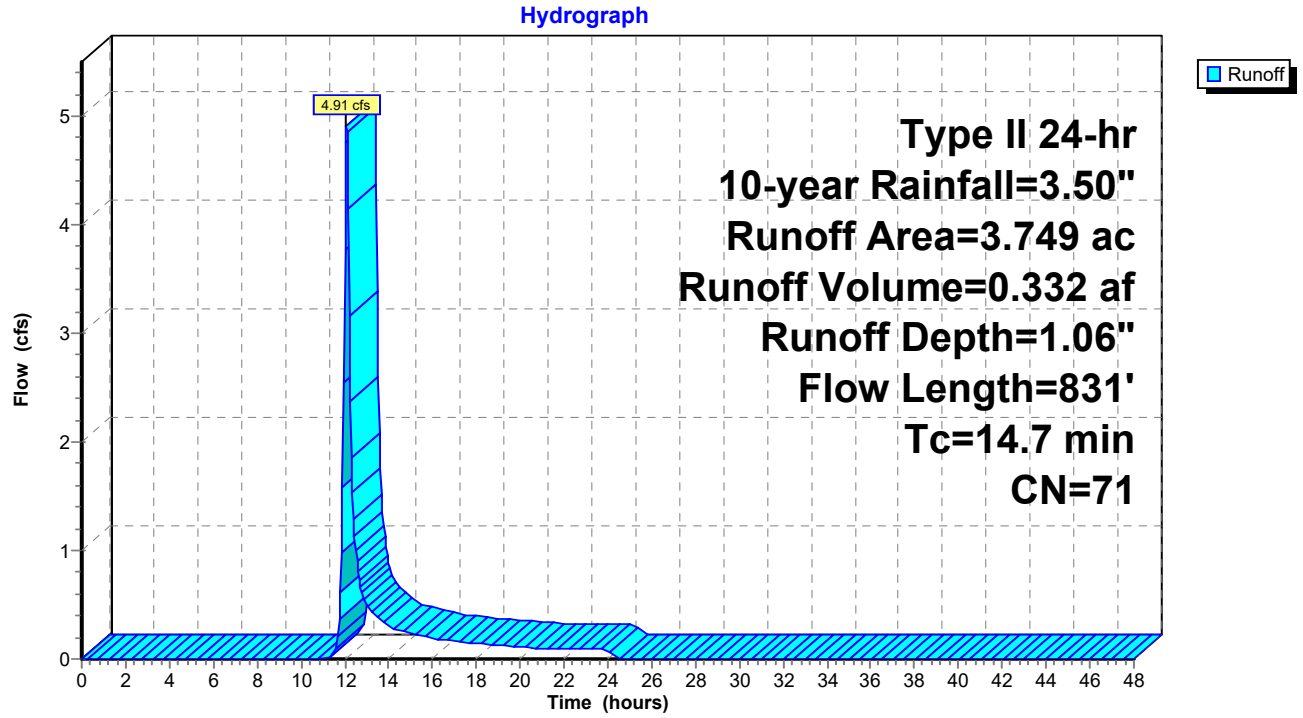
Runoff = 4.91 cfs @ 12.08 hrs, Volume= 0.332 af, Depth= 1.06"
Routed to Pond 27.1P : 27.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	3.035	71	Meadow, non-grazed, HSG C
	0.435	58	Meadow, non-grazed, HSG B
*	0.279	96	Gravel
	3.749	71	Weighted Average
	3.749		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.1	391	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.2	175	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	165	0.0530	1.61		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.7	831	Total			

Subcatchment 27.1S: Sub 27.1



Summary for Subcatchment 27S: Sub 27

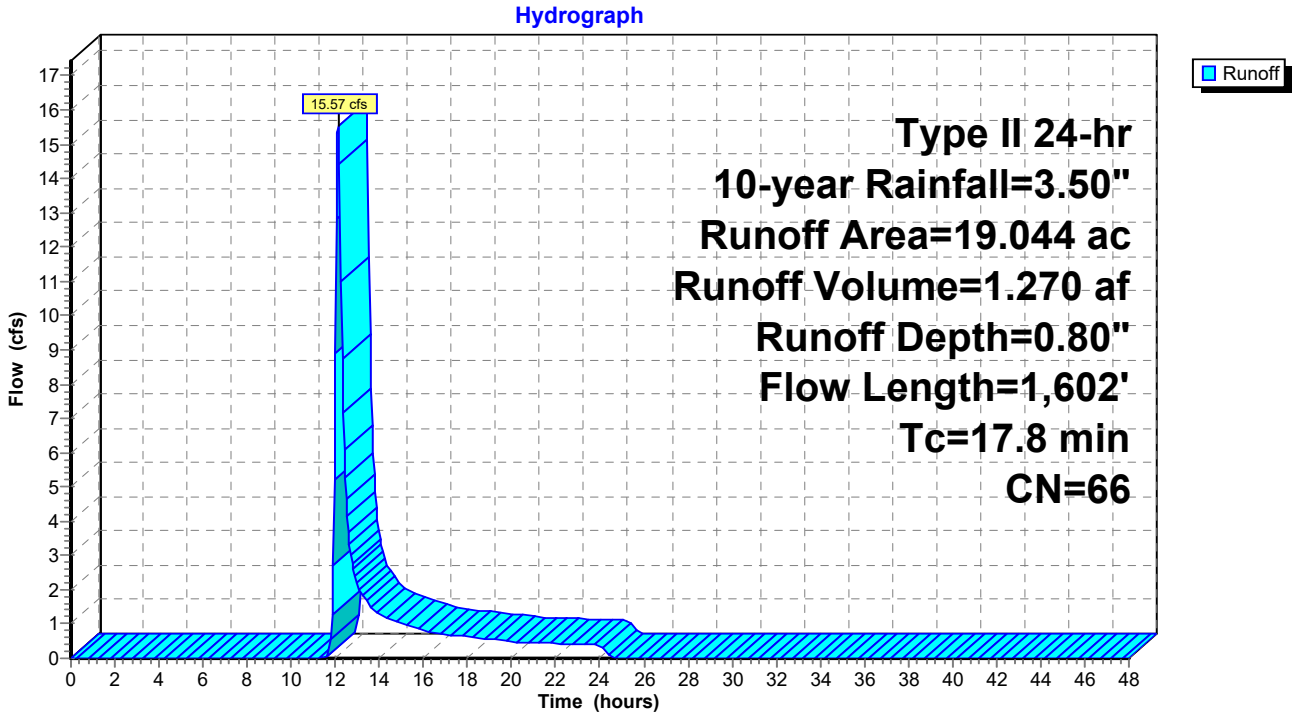
Runoff = 15.57 cfs @ 12.13 hrs, Volume= 1.270 af, Depth= 0.80"
Routed to Link SP27 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.254	96	Gravel surface, HSG D
0.064	98	Unconnected roofs, HSG D
8.719	58	Meadow, non-grazed, HSG B
7.839	71	Meadow, non-grazed, HSG C
0.231	61	>75% Grass cover, Good, HSG B
1.416	74	>75% Grass cover, Good, HSG C
0.140	80	>75% Grass cover, Good, HSG D
0.381	98	Water Surface, HSG D
19.044	66	Weighted Average
18.599		97.66% Pervious Area
0.445		2.34% Impervious Area
0.064		14.38% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0650	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
7.4	832	0.0720	1.88		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	670		3.19		**Direct Entry, CF**
17.8	1,602	Total			

Subcatchment 27S: Sub 27



Summary for Subcatchment 28.1S: Sub 28.1

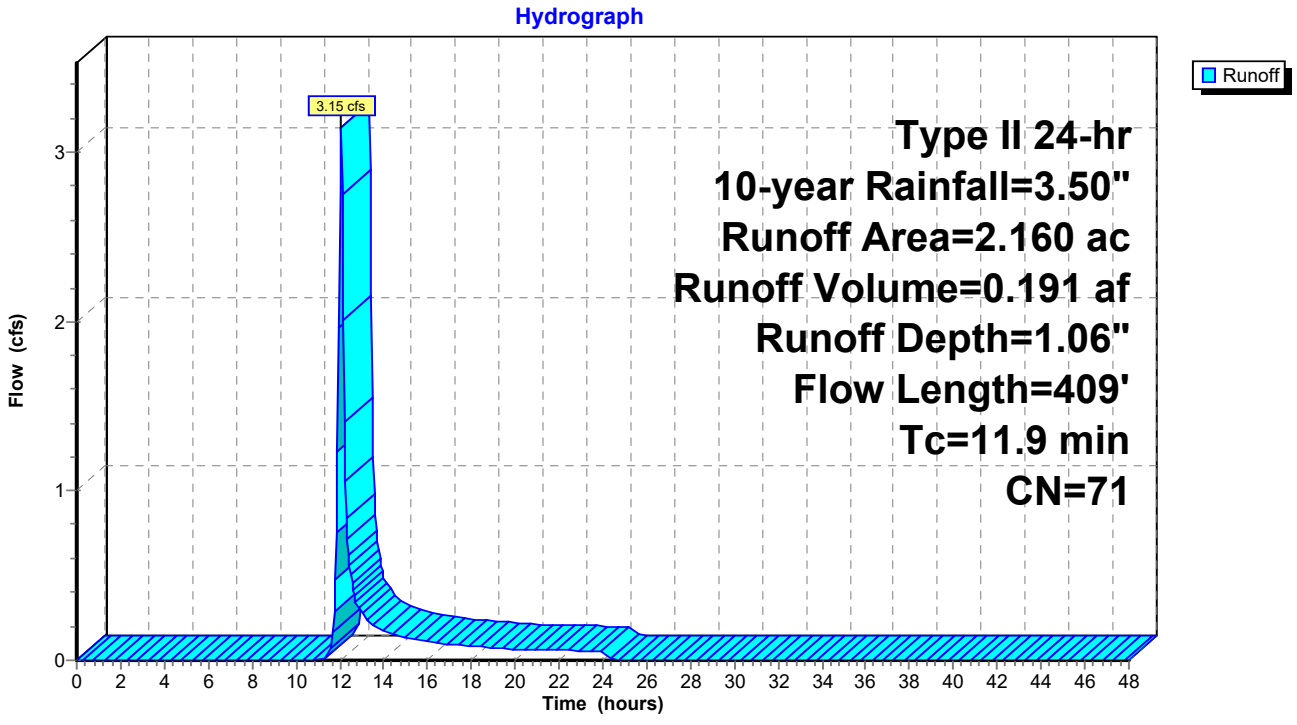
Runoff = 3.15 cfs @ 12.05 hrs, Volume= 0.191 af, Depth= 1.06"
Routed to Pond 28.1P : 28.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
*	0.051	96	Gravel
	0.068	58	Meadow, non-grazed, HSG B
	2.041	71	Meadow, non-grazed, HSG C
	2.160	71	Weighted Average
	2.160		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0420	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.7	309	0.0400	1.40		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
11.9	409	Total			

Subcatchment 28.1S: Sub 28.1



Summary for Subcatchment 28S: Sub 28

[47] Hint: Peak is 166% of capacity of segment #3

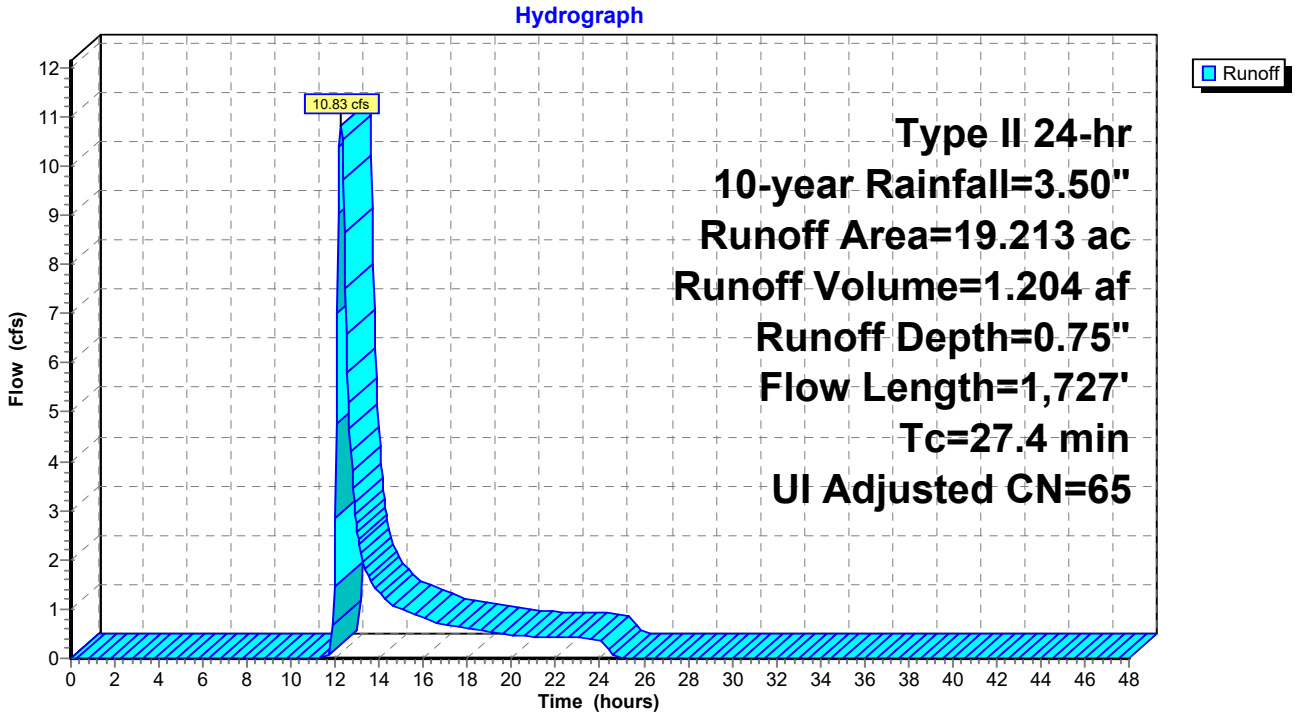
Runoff = 10.83 cfs @ 12.25 hrs, Volume= 1.204 af, Depth= 0.75"
Routed to Link SP28 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Adj	Description
0.547	96		Gravel surface, HSG D
0.114	98		Unconnected roofs, HSG D
8.804	58		Meadow, non-grazed, HSG B
7.984	71		Meadow, non-grazed, HSG C
0.902	61		>75% Grass cover, Good, HSG B
0.862	74		>75% Grass cover, Good, HSG C
19.213	66	65	Weighted Average, UI Adjusted
19.099			99.41% Pervious Area
0.114			0.59% Impervious Area
0.114			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0070	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
7.4	819	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.1	808	0.0420	4.36	6.53	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
27.4	1,727	Total			

Subcatchment 28S: Sub 28



Summary for Subcatchment 29S: Sub 29

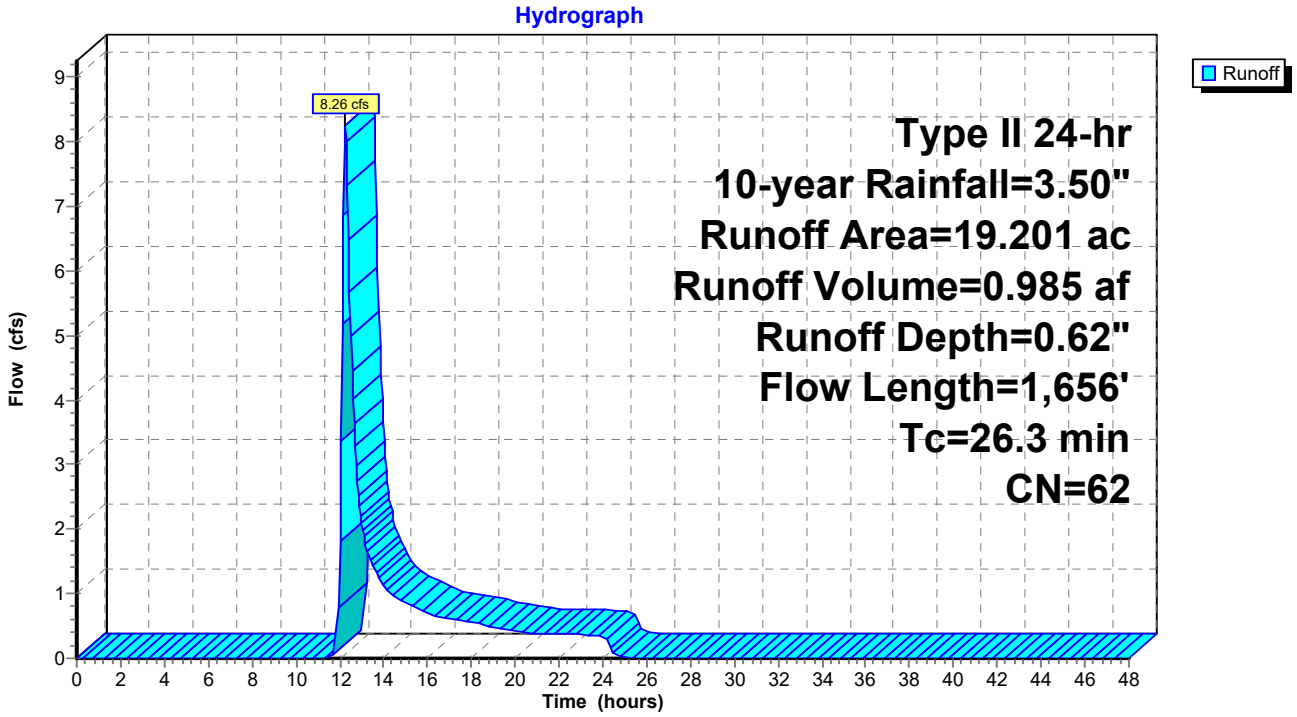
Runoff = 8.26 cfs @ 12.25 hrs, Volume= 0.985 af, Depth= 0.62"
Routed to Link SP29 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.326	96	Gravel surface, HSG D
0.240	98	Unconnected roofs, HSG D
14.674	58	Meadow, non-grazed, HSG B
3.955	71	Meadow, non-grazed, HSG C
0.006	55	Woods, Good, HSG B
19.201	62	Weighted Average
18.961		98.75% Pervious Area
0.240		1.25% Impervious Area
0.240		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0350	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
16.5	1,490	0.0460	1.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	66		1.22		**Direct Entry, CF**
26.3	1,656	Total			

Subcatchment 29S: Sub 29



Summary for Subcatchment 30.1S: Sub 30.1

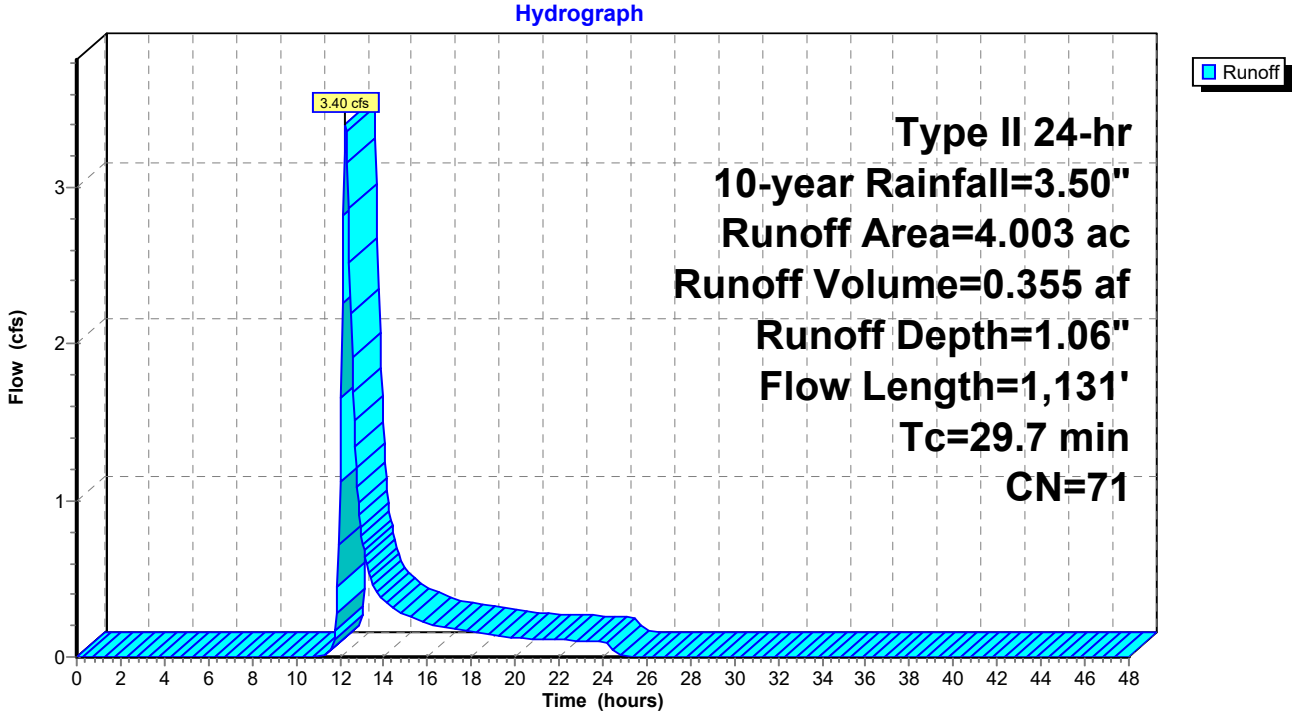
Runoff = 3.40 cfs @ 12.27 hrs, Volume= 0.355 af, Depth= 1.06"
Routed to Pond 30.1P : 30.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
4.003	71	Meadow, non-grazed, HSG C
4.003		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0090	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
14.4	1,031	0.0290	1.19		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
29.7	1,131	Total			

Subcatchment 30.1S: Sub 30.1



Summary for Subcatchment 30S: Sub 30

[47] Hint: Peak is 232% of capacity of segment #6

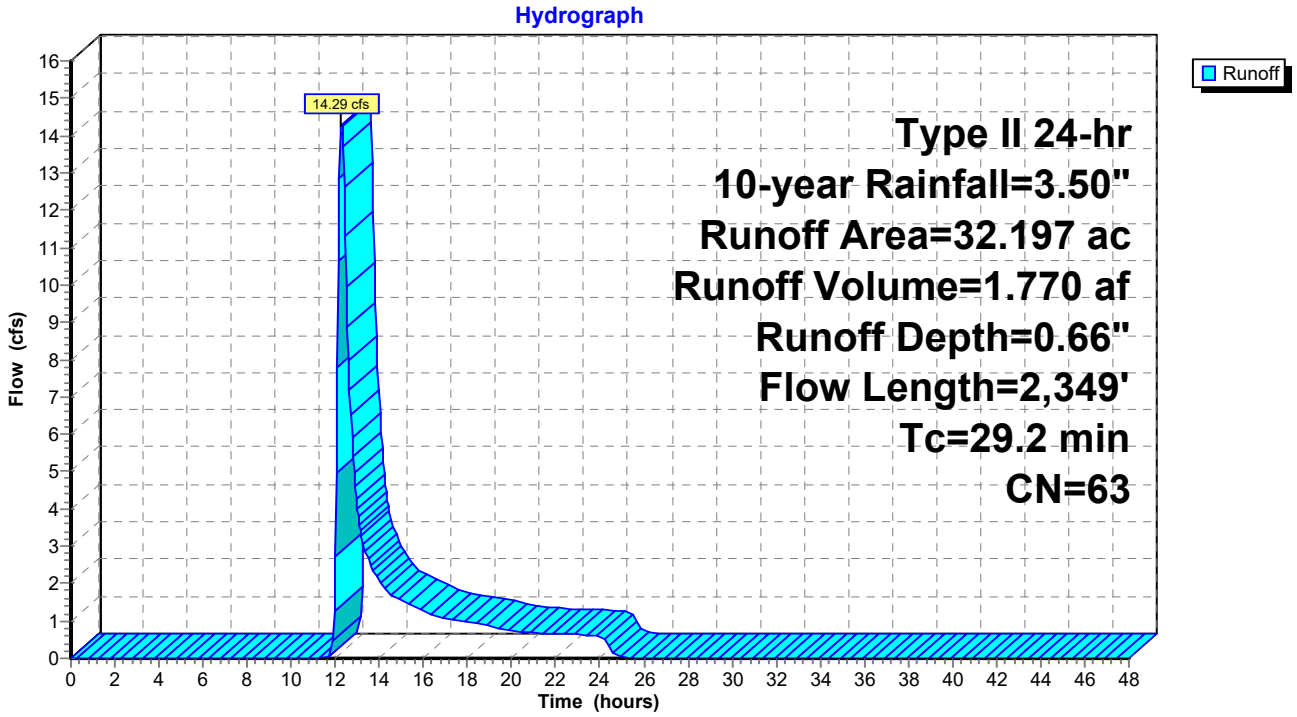
Runoff = 14.29 cfs @ 12.29 hrs, Volume= 1.770 af, Depth= 0.66"
Routed to Link SP30 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.214	48	Brush, Good, HSG B
0.283	65	Brush, Good, HSG C
1.013	96	Gravel surface, HSG D
0.445	98	Unconnected roofs, HSG D
19.622	58	Meadow, non-grazed, HSG B
8.229	71	Meadow, non-grazed, HSG C
0.221	61	>75% Grass cover, Good, HSG B
0.026	74	>75% Grass cover, Good, HSG C
2.132	55	Woods, Good, HSG B
0.012	70	Woods, Good, HSG C
32.197	63	Weighted Average
31.752		98.62% Pervious Area
0.445		1.38% Impervious Area
0.445		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.4	228	0.0260	1.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	171	0.1050	4.86		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.8	279	0.0570	1.67		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.5	554	0.0410	1.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.8	1,017	0.0290	3.52	6.15	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 3.0 '/' Top.W=5.00' n= 0.035 Earth, dense weeds
29.2	2,349	Total			

Subcatchment 30S: Sub 30



Summary for Subcatchment 31.1S: Sub 31.1

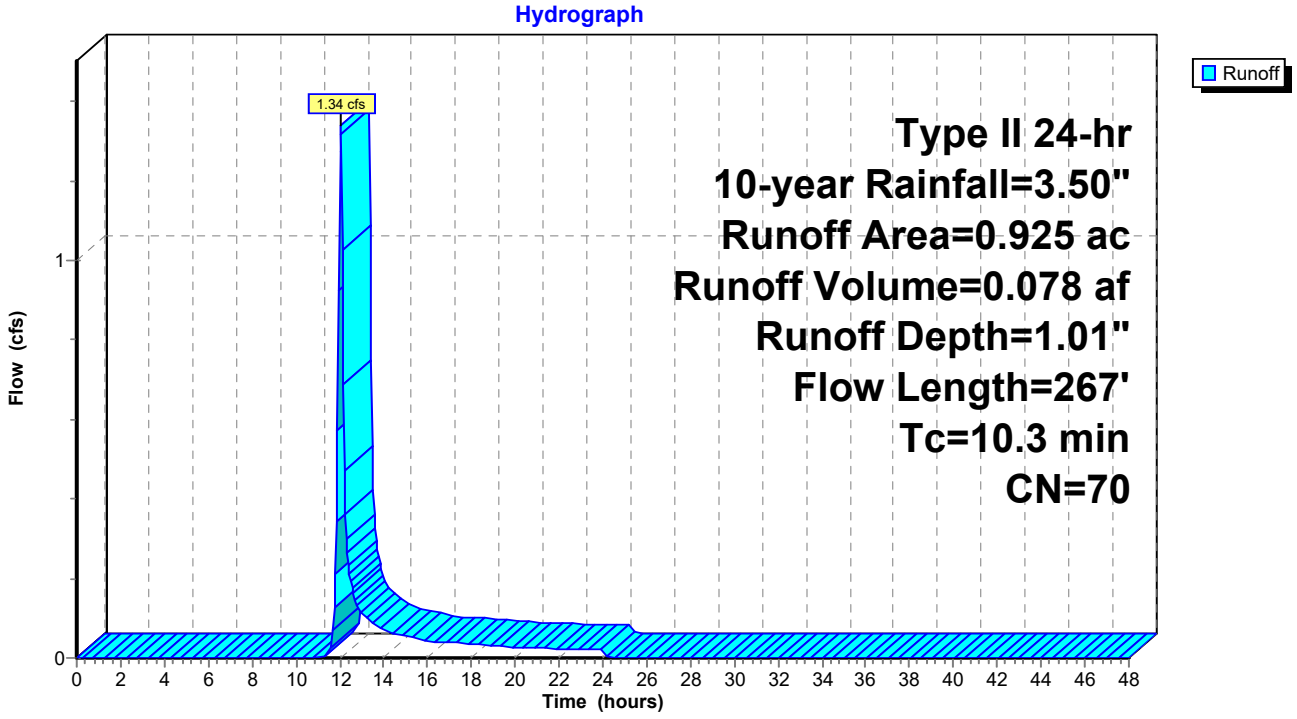
Runoff = 1.34 cfs @ 12.03 hrs, Volume= 0.078 af, Depth= 1.01"
Routed to Pond 31.1P : 31.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.047	58	Meadow, non-grazed, HSG B
0.878	71	Meadow, non-grazed, HSG C
0.925	70	Weighted Average
0.925		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	100	0.0330	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.9	90	0.0522	1.60		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	77	0.0130	4.02	20.10	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 3.0 '/' Top.W=8.00' n= 0.030 Earth, grassed & winding
10.3	267	Total			

Subcatchment 31.1S: Sub 31.1



Summary for Subcatchment 31S: Sub 31

[47] Hint: Peak is 226% of capacity of segment #3

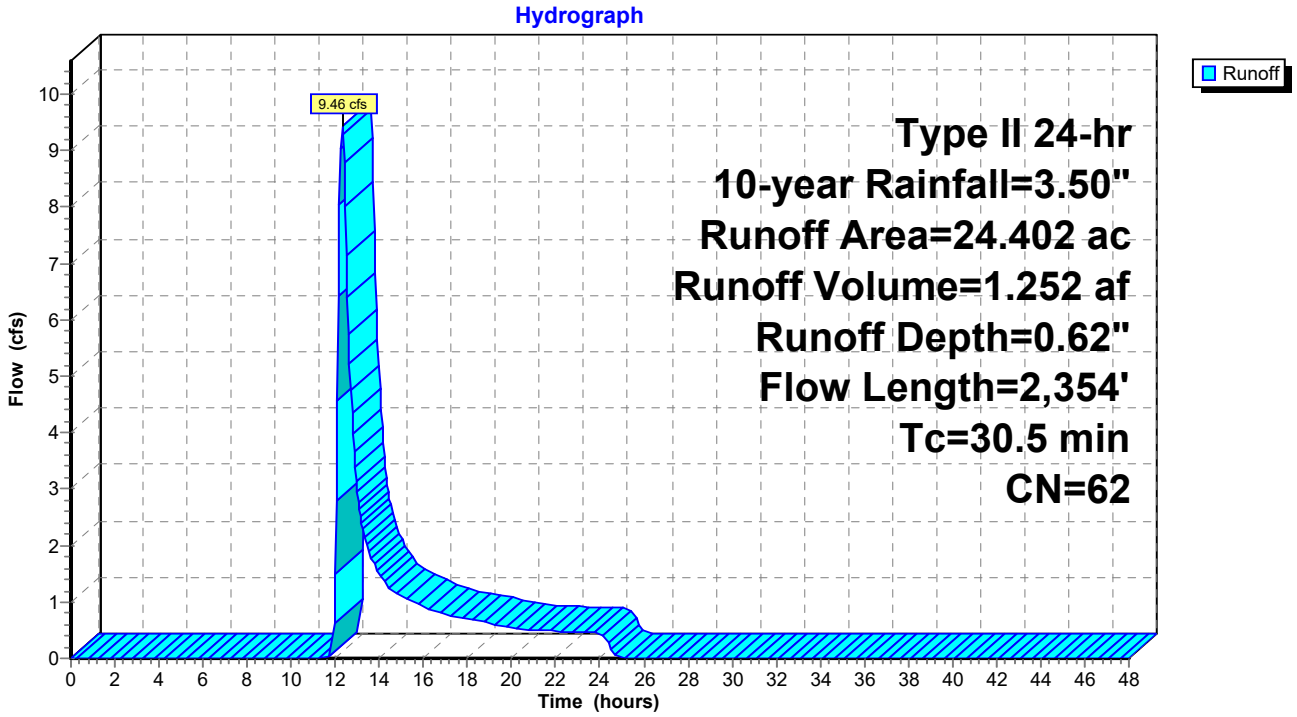
Runoff = 9.46 cfs @ 12.31 hrs, Volume= 1.252 af, Depth= 0.62"
Routed to Link SP34 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.029	48	Brush, Good, HSG B
14.311	58	Meadow, non-grazed, HSG B
6.600	71	Meadow, non-grazed, HSG C
2.870	55	Woods, Good, HSG B
0.044	70	Woods, Good, HSG C
0.548	96	Gravel surface, HSG D
24.402	62	Weighted Average
24.402		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0420	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
18.9	1,401	0.0310	1.23		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	853	0.0938	4.18	4.18	**Parabolic Channel,** W=3.00' D=0.50' Area=1.0 sf Perim=3.2' n= 0.050 Mountain streams w/large boulders
30.5	2,354	Total			

Subcatchment 31S: Sub 31



Summary for Subcatchment 32.1S: 32.1S

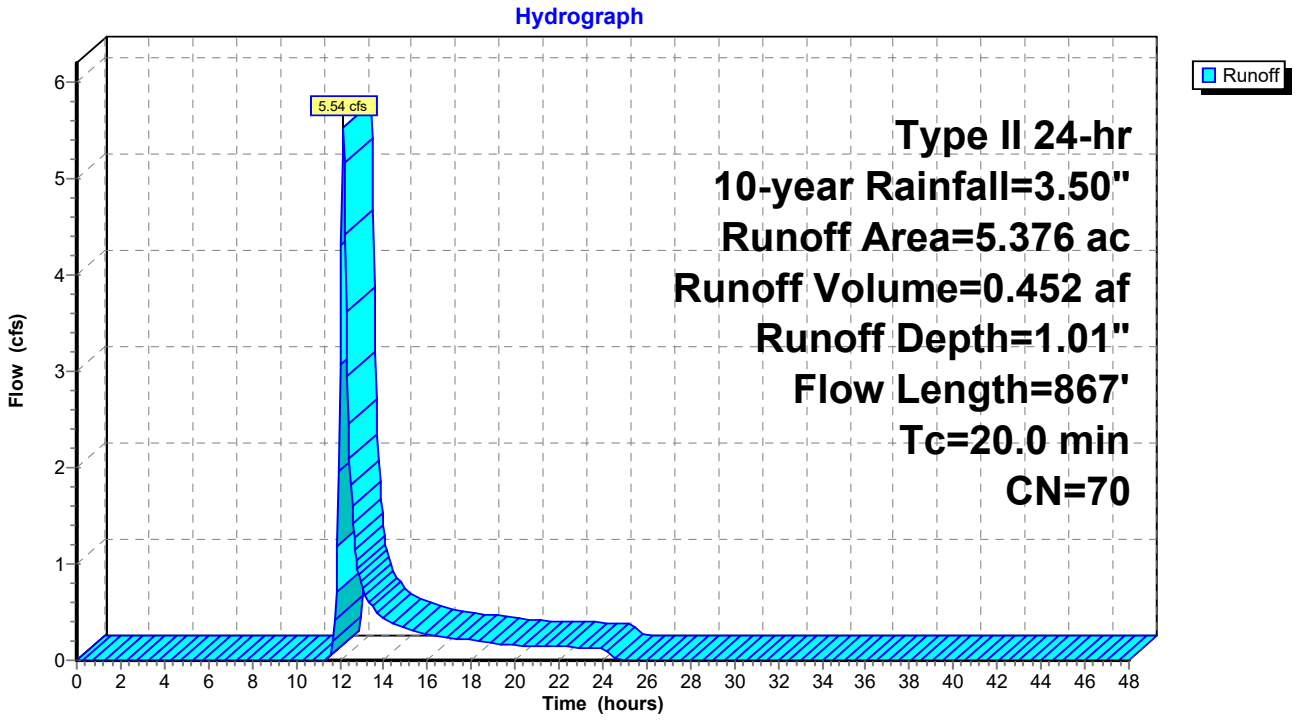
Runoff = 5.54 cfs @ 12.15 hrs, Volume= 0.452 af, Depth= 1.01"
Routed to Pond 32.1P : 32.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
*	0.166	96	Gravel
	0.888	58	Meadow, non-grazed, HSG B
	4.322	71	Meadow, non-grazed, HSG C
	5.376	70	Weighted Average
	5.376		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0450	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
12.0	767	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.0	867	Total			

Subcatchment 32.1S: 32.1S



Summary for Subcatchment 32S: Sub 32

[47] Hint: Peak is 349% of capacity of segment #7

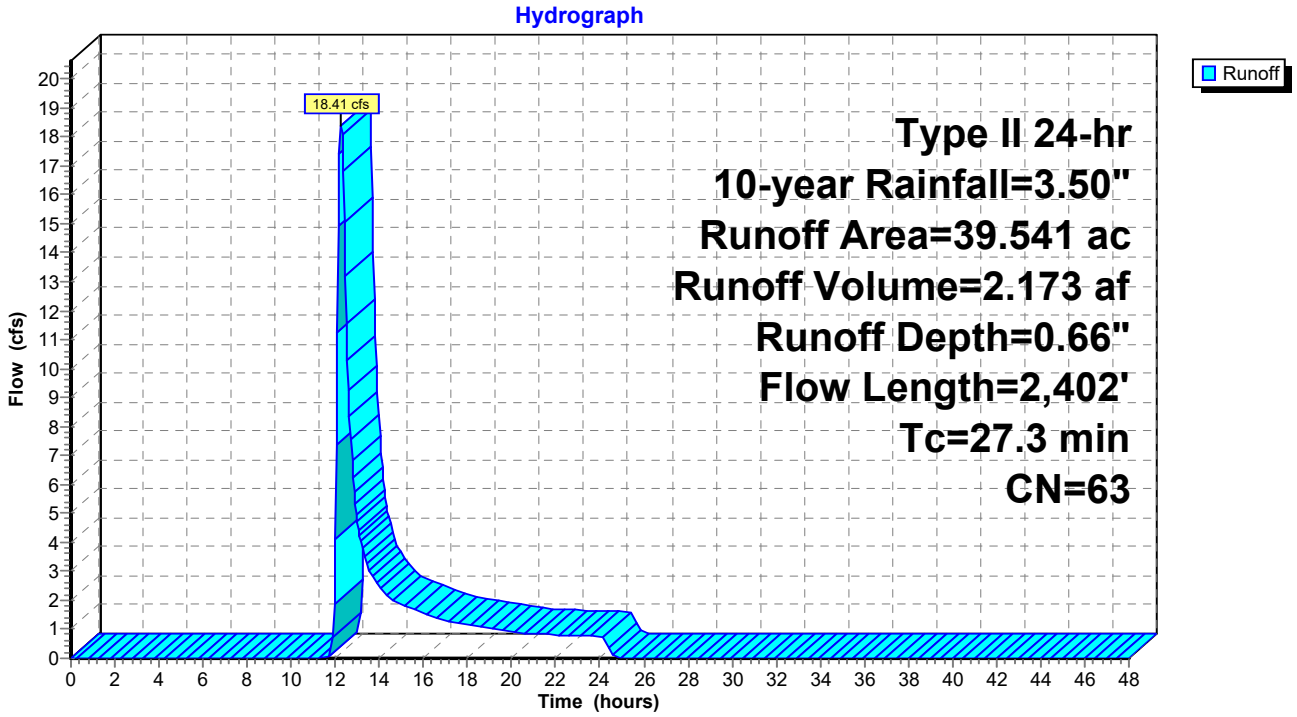
Runoff = 18.41 cfs @ 12.26 hrs, Volume= 2.173 af, Depth= 0.66"
Routed to Link SP34 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.124	48	Brush, Good, HSG B
25.962	58	Meadow, non-grazed, HSG B
4.042	71	Meadow, non-grazed, HSG C
2.796	98	Water Surface, HSG D
5.751	55	Woods, Good, HSG B
0.866	96	Gravel surface, HSG D
39.541	63	Weighted Average
36.745		92.93% Pervious Area
2.796		7.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0280	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.6	160	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.6	495	0.1050	2.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.5	74	0.0270	0.82		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	99	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
6.5	550	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	924	0.0910	10.13	5.27	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.20' Z= 3.0 '/' Top.W=3.20' n= 0.013 Corrugated PE, smooth interior
27.3	2,402	Total			

Subcatchment 32S: Sub 32



Summary for Subcatchment 33.1S: 33.1S

[47] Hint: Peak is 530% of capacity of segment #3

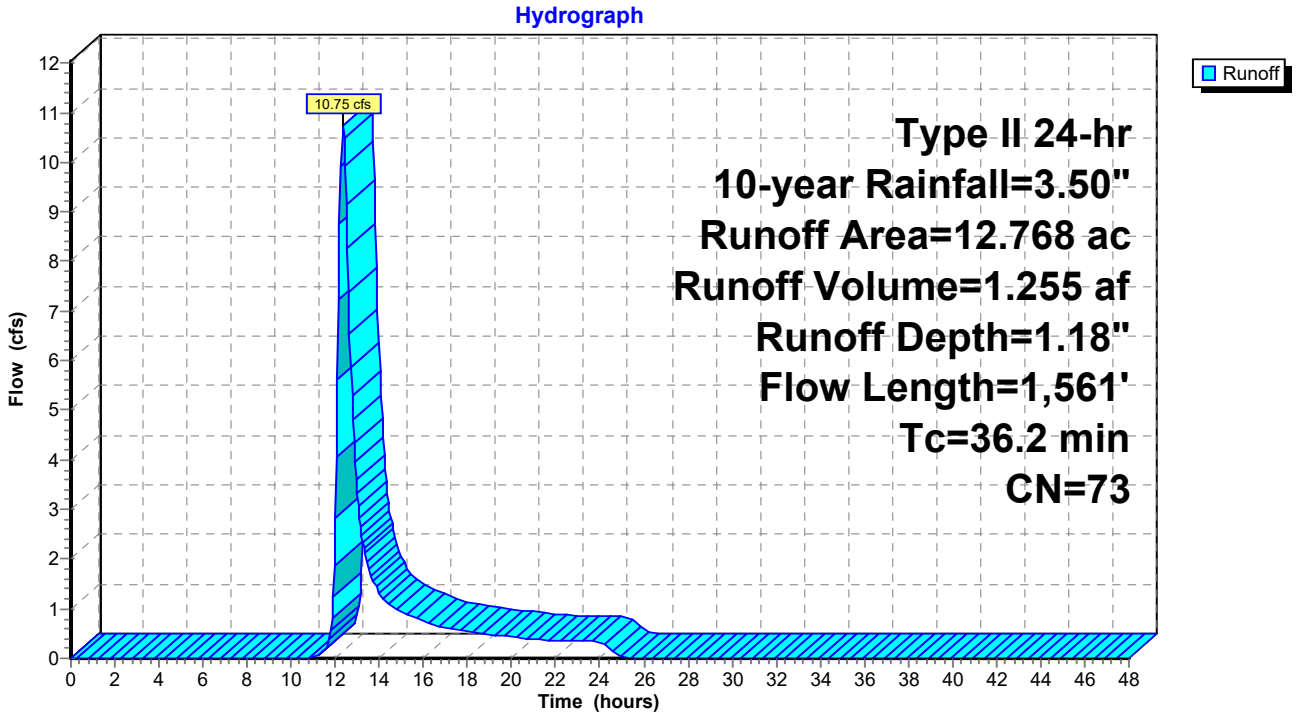
Runoff = 10.75 cfs @ 12.34 hrs, Volume= 1.255 af, Depth= 1.18"
Routed to Pond 33.1P : 33.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
*	0.536	96	Gravel
	0.787	58	Meadow, non-grazed, HSG B
	2.948	78	Meadow, non-grazed, HSG D
*	0.180	98	Impervious
	8.285	71	Meadow, non-grazed, HSG C
	0.032	48	Brush, Good, HSG B
	12.768	73	Weighted Average
	12.588		98.59% Pervious Area
	0.180		1.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0090	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
15.9	669	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	638	0.0150	4.23	2.03	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.20' Z= 2.0 '/' Top.W=2.80' n= 0.013 Corrugated PE, smooth interior
2.5	154	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
36.2	1,561	Total			

Subcatchment 33.1S: 33.1S



Summary for Subcatchment 33S: Sub 33

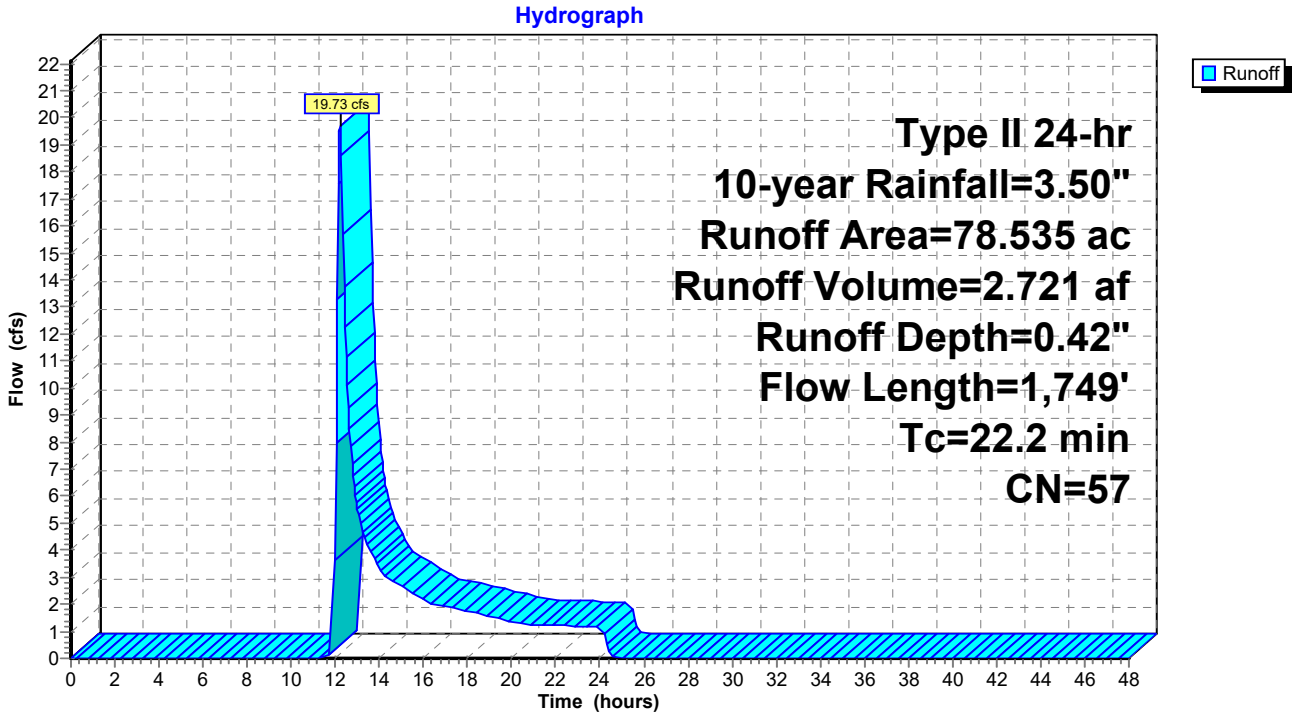
Runoff = 19.73 cfs @ 12.22 hrs, Volume= 2.721 af, Depth= 0.42"
Routed to Link SP34 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.383	48	Brush, Good, HSG B
0.083	96	Gravel surface, HSG D
0.438	98	Unconnected roofs, HSG D
45.013	58	Meadow, non-grazed, HSG B
0.353	71	Meadow, non-grazed, HSG C
0.171	78	Meadow, non-grazed, HSG D
3.827	61	>75% Grass cover, Good, HSG B
27.985	55	Woods, Good, HSG B
0.282	70	Woods, Good, HSG C
78.535	57	Weighted Average
78.097		99.44% Pervious Area
0.438		0.56% Impervious Area
0.438		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0350	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.8	780	0.1010	2.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	531	0.1059	2.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.6	338	0.1005	1.59		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.2	1,749	Total			

Subcatchment 33S: Sub 33



Summary for Subcatchment 34S: Sub 34

[47] Hint: Peak is 324% of capacity of segment #3

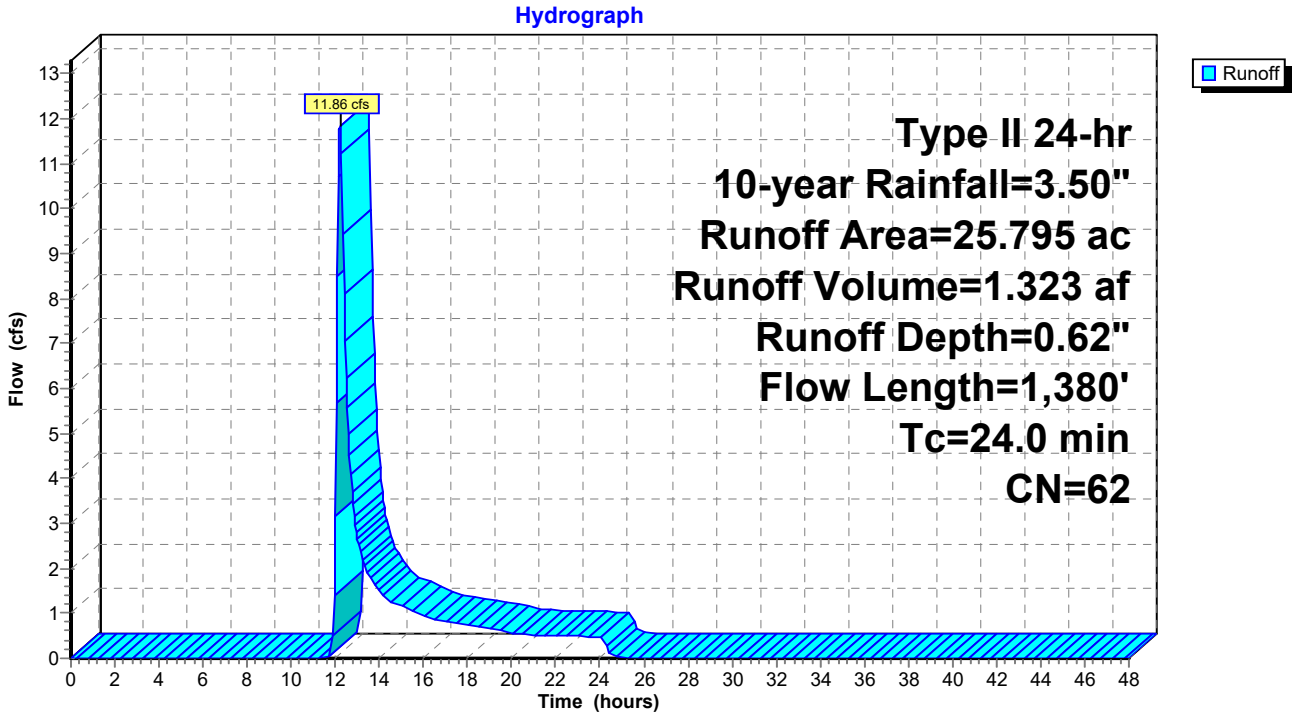
Runoff = 11.86 cfs @ 12.22 hrs, Volume= 1.323 af, Depth= 0.62"
Routed to Pond 34P : VAN EPPS RD CULVERT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.189	48	Brush, Good, HSG B
0.572	96	Gravel surface, HSG D
0.299	98	Unconnected roofs, HSG D
16.306	58	Meadow, non-grazed, HSG B
3.458	71	Meadow, non-grazed, HSG C
3.128	61	>75% Grass cover, Good, HSG B
1.486	74	>75% Grass cover, Good, HSG C
0.357	55	Woods, Good, HSG B
25.795	62	Weighted Average
25.496		98.84% Pervious Area
0.299		1.16% Impervious Area
0.299		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	100	0.0675	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
15.5	914	0.0198	0.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	42	0.0119	2.99	3.66	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.025 Corrugated metal
1.5	324	0.0552	3.52		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
24.0	1,380	Total			

Subcatchment 34S: Sub 34



Summary for Subcatchment 35S: Sub 35

[47] Hint: Peak is 297% of capacity of segment #6

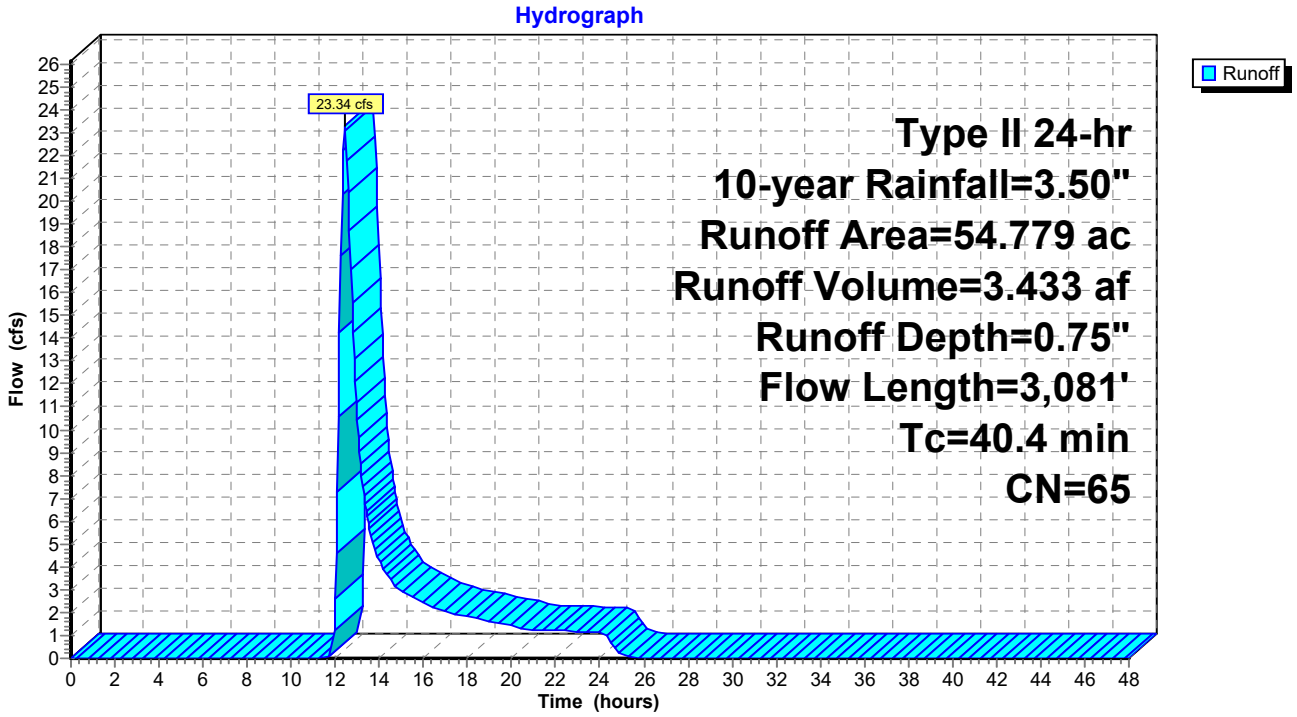
Runoff = 23.34 cfs @ 12.44 hrs, Volume= 3.433 af, Depth= 0.75"
Routed to Link SP35 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.105	48	Brush, Good, HSG B
0.087	65	Brush, Good, HSG C
1.101	98	Unconnected roofs, HSG D
24.009	58	Meadow, non-grazed, HSG B
23.901	71	Meadow, non-grazed, HSG C
0.319	61	>75% Grass cover, Good, HSG B
1.272	74	>75% Grass cover, Good, HSG C
1.962	55	Woods, Good, HSG B
1.488	70	Woods, Good, HSG C
0.535	96	Gravel surface, HSG D
54.779	65	Weighted Average
53.678		97.99% Pervious Area
1.101		2.01% Impervious Area
1.101		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.0440	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.6	393	0.0204	1.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.3	1,170	0.0510	1.58		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.3	272	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.1	435	0.0410	1.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	711	0.1030	3.93	7.86	**Parabolic Channel,** W=3.00' D=1.00' Area=2.0 sf Perim=3.7' n= 0.080 Earth, long dense weeds
40.4	3,081	Total			

Subcatchment 35S: Sub 35



Summary for Subcatchment 36S: Sub 36

[47] Hint: Peak is 410% of capacity of segment #3

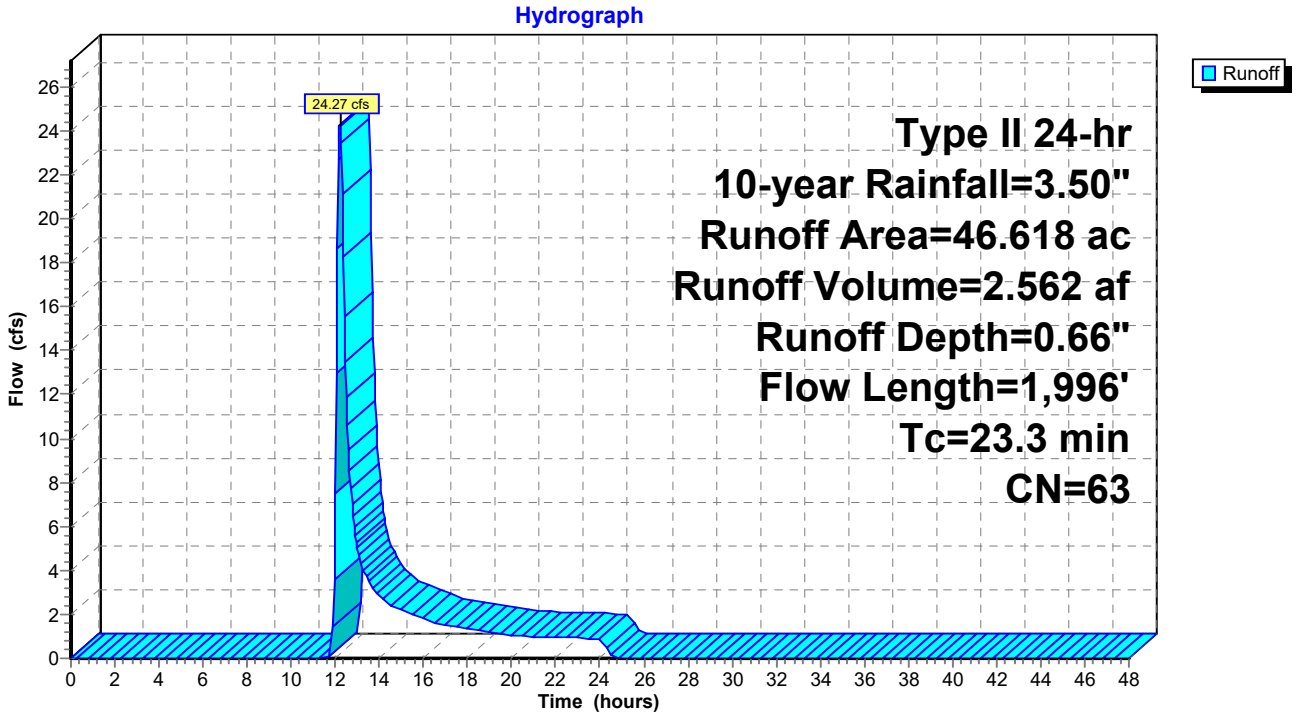
Runoff = 24.27 cfs @ 12.21 hrs, Volume= 2.562 af, Depth= 0.66"
Routed to Link SP36 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.319	96	Gravel surface, HSG D
3.277	58	Meadow, non-grazed, HSG B
21.346	71	Meadow, non-grazed, HSG C
21.676	55	Woods, Good, HSG B
46.618	63	Weighted Average
46.618		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.0550	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.7	1,036	0.0442	1.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.2	860	0.1400	3.38	5.91	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 3.0 '/' Top.W=5.00' n= 0.080 Earth, long dense weeds
23.3	1,996	Total			

Subcatchment 36S: Sub 36



Summary for Subcatchment 37S: Sub 37

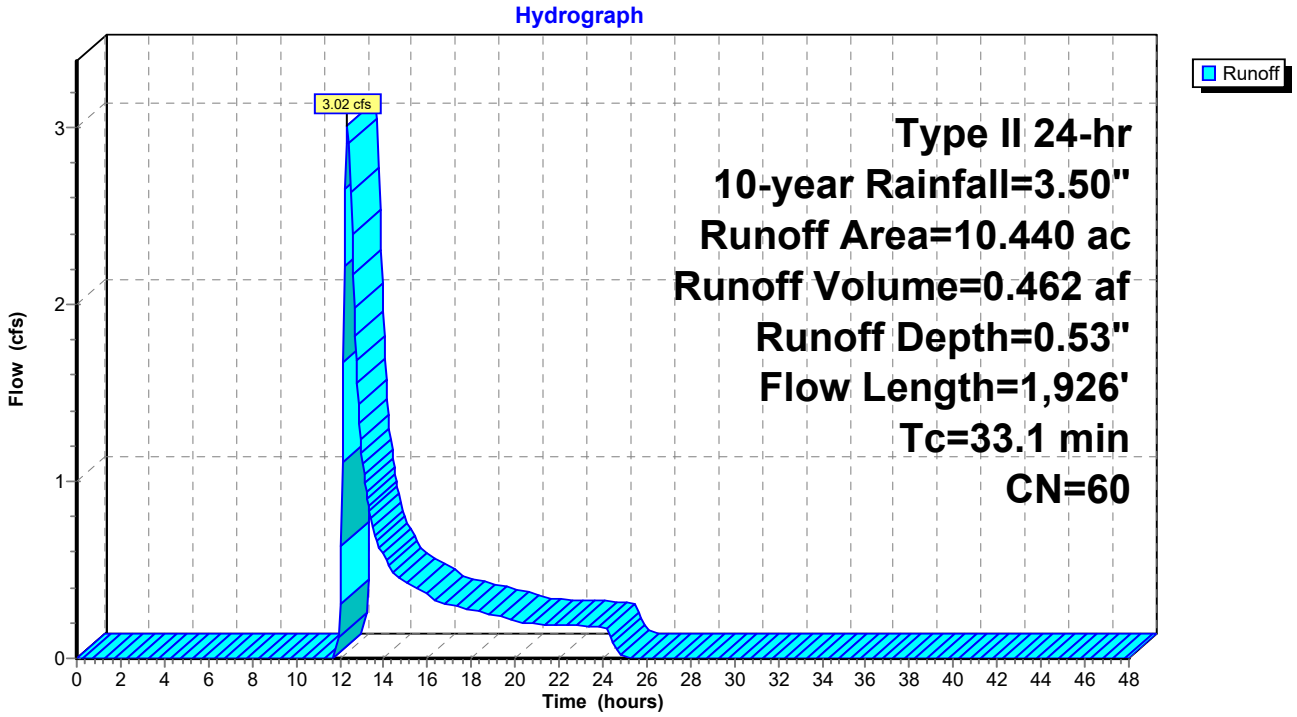
Runoff = 3.02 cfs @ 12.36 hrs, Volume= 0.462 af, Depth= 0.53"
Routed to Link SP37 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	8.161	58	Meadow, non-grazed, HSG B
	1.673	55	Woods, Good, HSG B
*	0.606	98	Impervious
	10.440	60	Weighted Average
	9.834		94.20% Pervious Area
	0.606		5.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0050	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.6	1,005	0.0507	1.58		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	90	0.0889	1.49		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.2	731	0.0570	5.59	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 3.0 '/' Top.W=9.00' n= 0.035 Earth, dense weeds
33.1	1,926	Total			

Subcatchment 37S: Sub 37



Summary for Subcatchment 38S: Sub 38

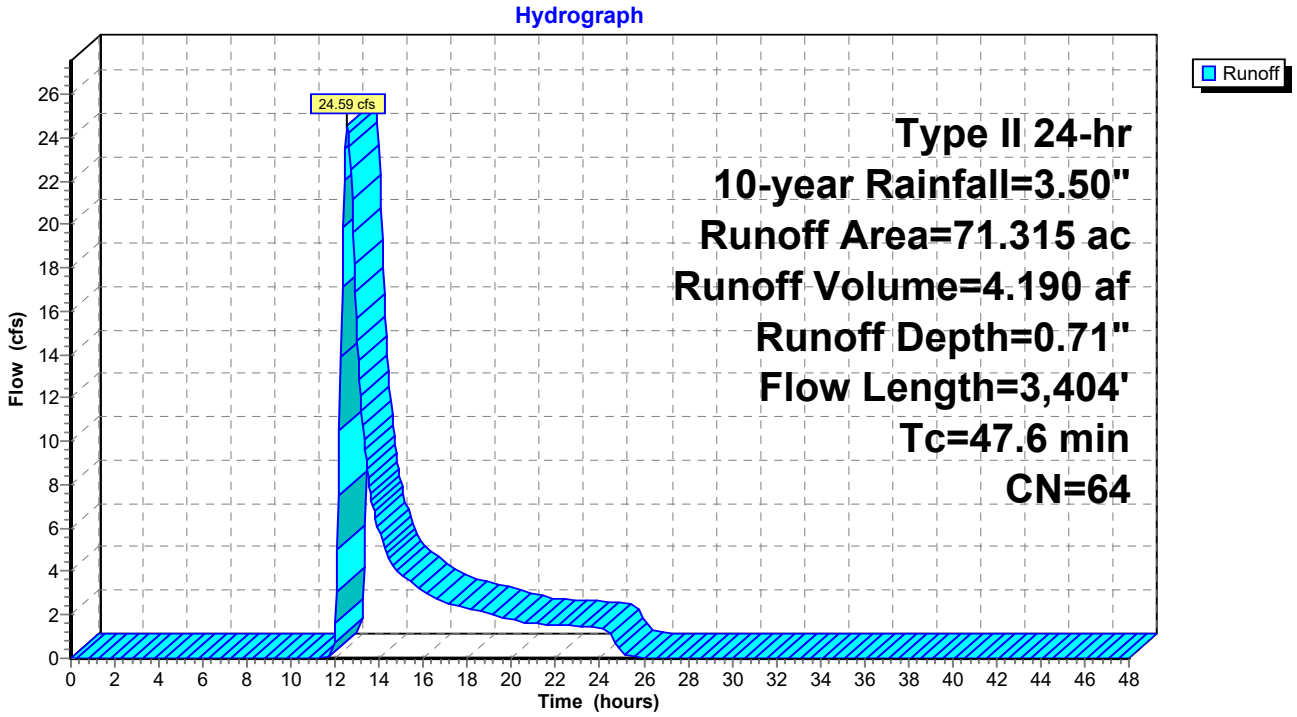
Runoff = 24.59 cfs @ 12.55 hrs, Volume= 4.190 af, Depth= 0.71"
Routed to Link SP38 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.437	96	Gravel surface, HSG D
0.789	98	Unconnected roofs, HSG D
29.694	58	Meadow, non-grazed, HSG B
36.187	71	Meadow, non-grazed, HSG C
3.907	30	Woods, Good, HSG A
0.301	55	Woods, Good, HSG B
71.315	64	Weighted Average
70.526		98.89% Pervious Area
0.789		1.11% Impervious Area
0.789		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.0500	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.9	739	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.6	753	0.0744	1.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.4	1,812	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
47.6	3,404	Total			

Subcatchment 38S: Sub 38



Summary for Subcatchment 39S: Sub 39

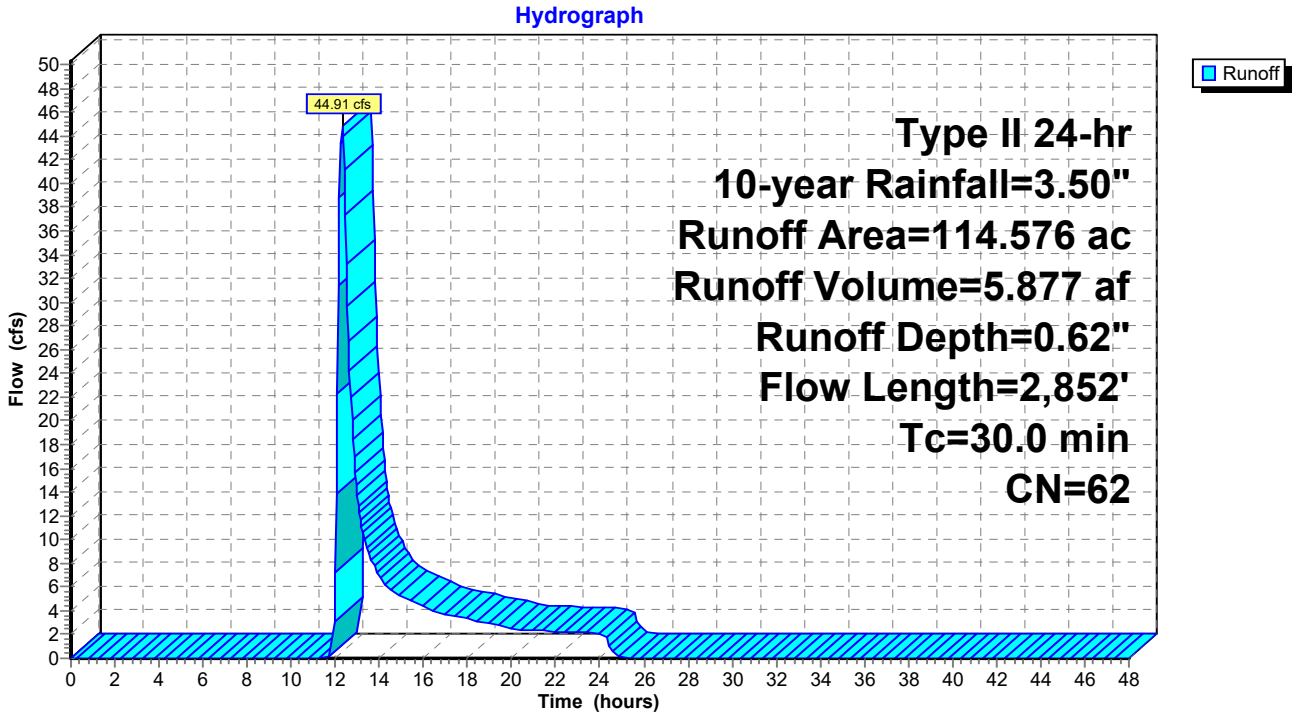
Runoff = 44.91 cfs @ 12.31 hrs, Volume= 5.877 af, Depth= 0.62"
Routed to Link SP39 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
2.544	96	Gravel surface, HSG D
0.425	98	Unconnected roofs, HSG D
71.899	58	Meadow, non-grazed, HSG B
22.397	71	Meadow, non-grazed, HSG C
2.604	78	Meadow, non-grazed, HSG D
0.132	98	Water Surface, HSG D
14.268	55	Woods, Good, HSG B
0.228	70	Woods, Good, HSG C
0.079	77	Woods, Good, HSG D
114.576	62	Weighted Average
114.019		99.51% Pervious Area
0.557		0.49% Impervious Area
0.425		76.30% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0600	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
17.7	2,151	0.0840	2.03		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.2	601	0.1490	1.93		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
30.0	2,852	Total			

Subcatchment 39S: Sub 39



Summary for Subcatchment 40S: Sub 40

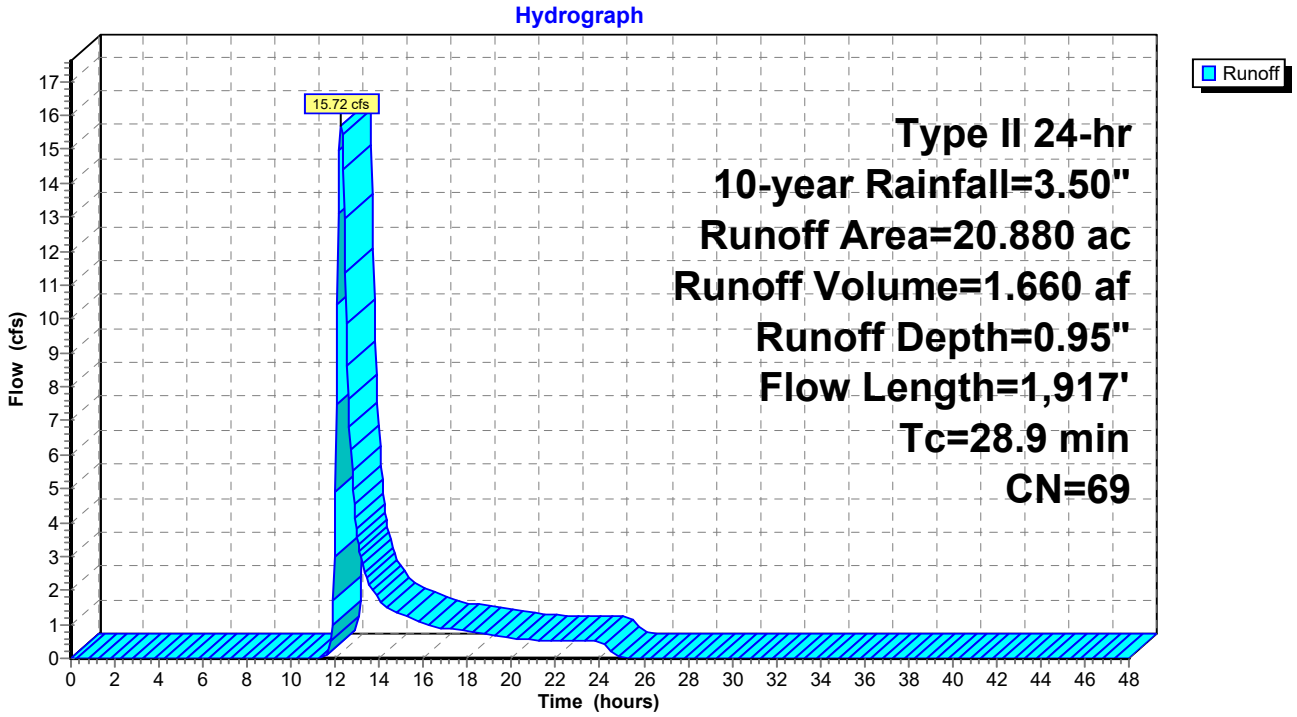
Runoff = 15.72 cfs @ 12.26 hrs, Volume= 1.660 af, Depth= 0.95"
Routed to Reach 39R :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.016	65	Brush, Good, HSG C
0.235	96	Gravel surface, HSG D
0.018	98	Unconnected roofs, HSG D
6.944	58	Meadow, non-grazed, HSG B
10.584	71	Meadow, non-grazed, HSG C
0.095	78	Meadow, non-grazed, HSG D
0.089	61	>75% Grass cover, Good, HSG B
1.640	98	Water Surface, HSG D
0.643	55	Woods, Good, HSG B
0.616	70	Woods, Good, HSG C
20.880	69	Weighted Average
19.222		92.06% Pervious Area
1.658		7.94% Impervious Area
0.018		1.09% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	100	0.0575	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.6	358	0.1089	2.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	38	0.1118	1.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.8	1,118	0.0733	1.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.8	303	0.0132	0.57		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.9	1,917	Total			

Subcatchment 40S: Sub 40



Summary for Subcatchment 41S: Sub 41

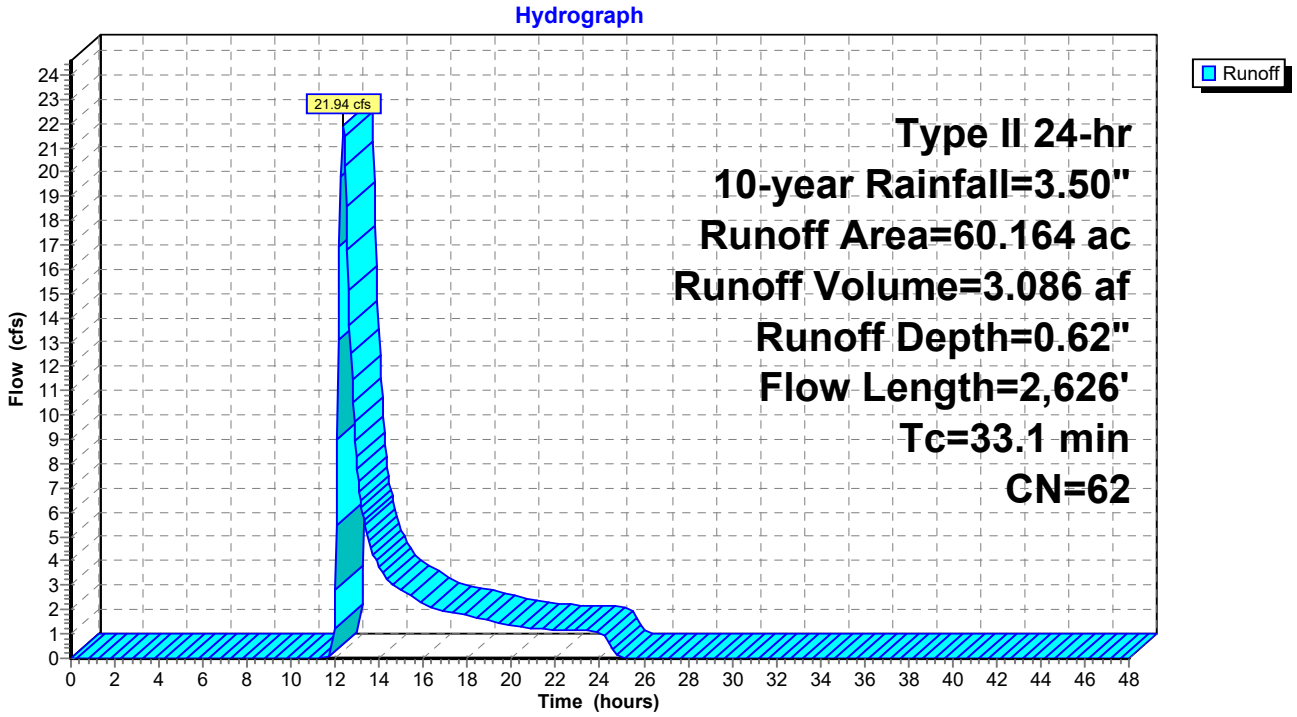
Runoff = 21.94 cfs @ 12.35 hrs, Volume= 3.086 af, Depth= 0.62"
Routed to Link SP41 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
21.630	58	Meadow, non-grazed, HSG B
8.822	71	Meadow, non-grazed, HSG C
2.302	78	Meadow, non-grazed, HSG D
17.906	55	Woods, Good, HSG B
9.226	70	Woods, Good, HSG C
0.278	96	Gravel surface, HSG D
60.164	62	Weighted Average
60.164		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.0	585	0.0765	1.94		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.8	652	0.0395	1.39		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.9	1,289	0.0436	3.13		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
33.1	2,626	Total			

Subcatchment 41S: Sub 41



Summary for Subcatchment 42.1S: 42.1P

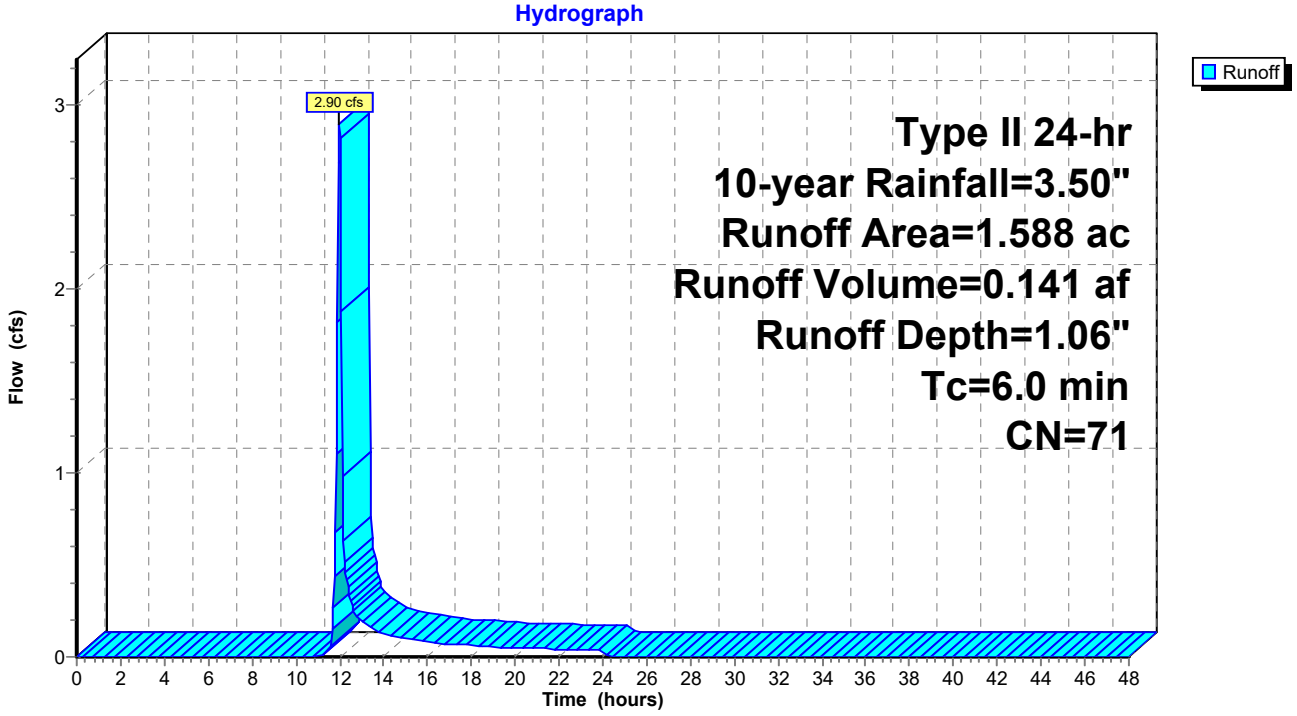
Runoff = 2.90 cfs @ 11.98 hrs, Volume= 0.141 af, Depth= 1.06"
Routed to Pond 42P : 42P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
1.588	71	Meadow, non-grazed, HSG C
1.588		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 42.1S: 42.1P



Summary for Subcatchment 42.2S: 42.2P

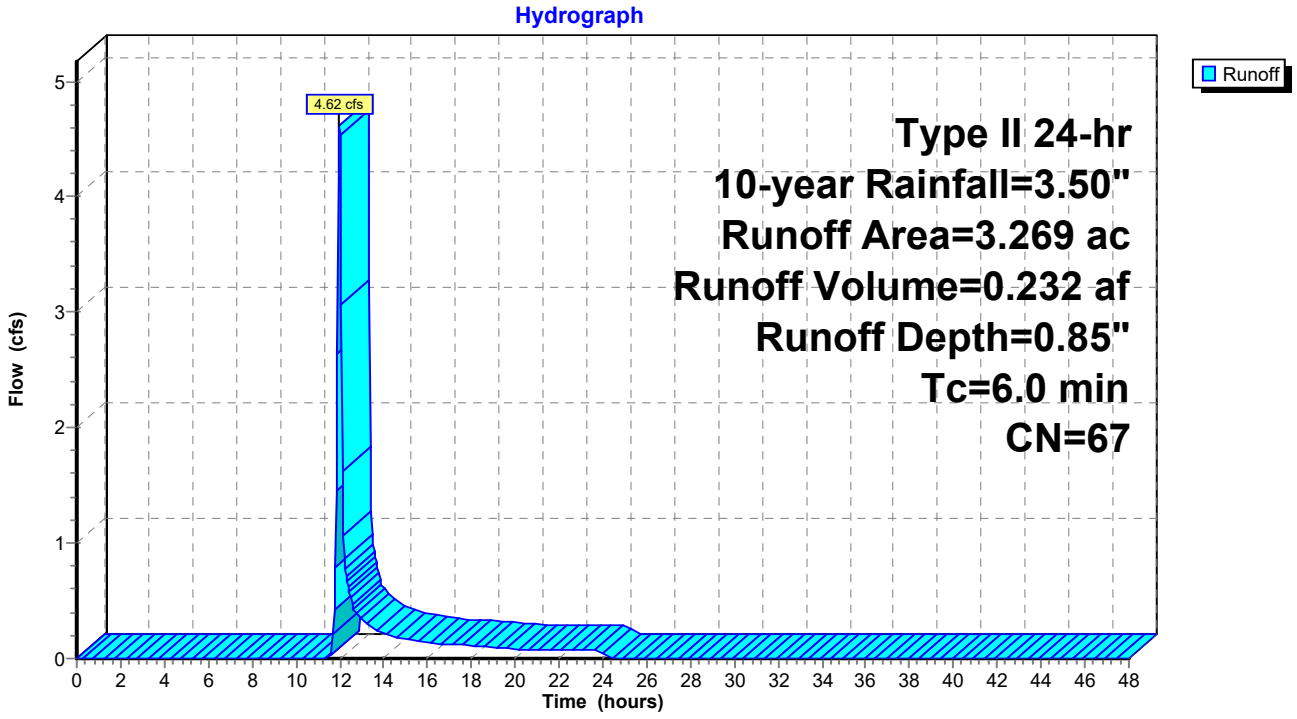
Runoff = 4.62 cfs @ 11.99 hrs, Volume= 0.232 af, Depth= 0.85"
Routed to Pond 42P : 42P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.922	58	Meadow, non-grazed, HSG B
2.347	71	Meadow, non-grazed, HSG C
3.269	67	Weighted Average
3.269		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 42.2S: 42.2P



Summary for Subcatchment 42S: Sub 42

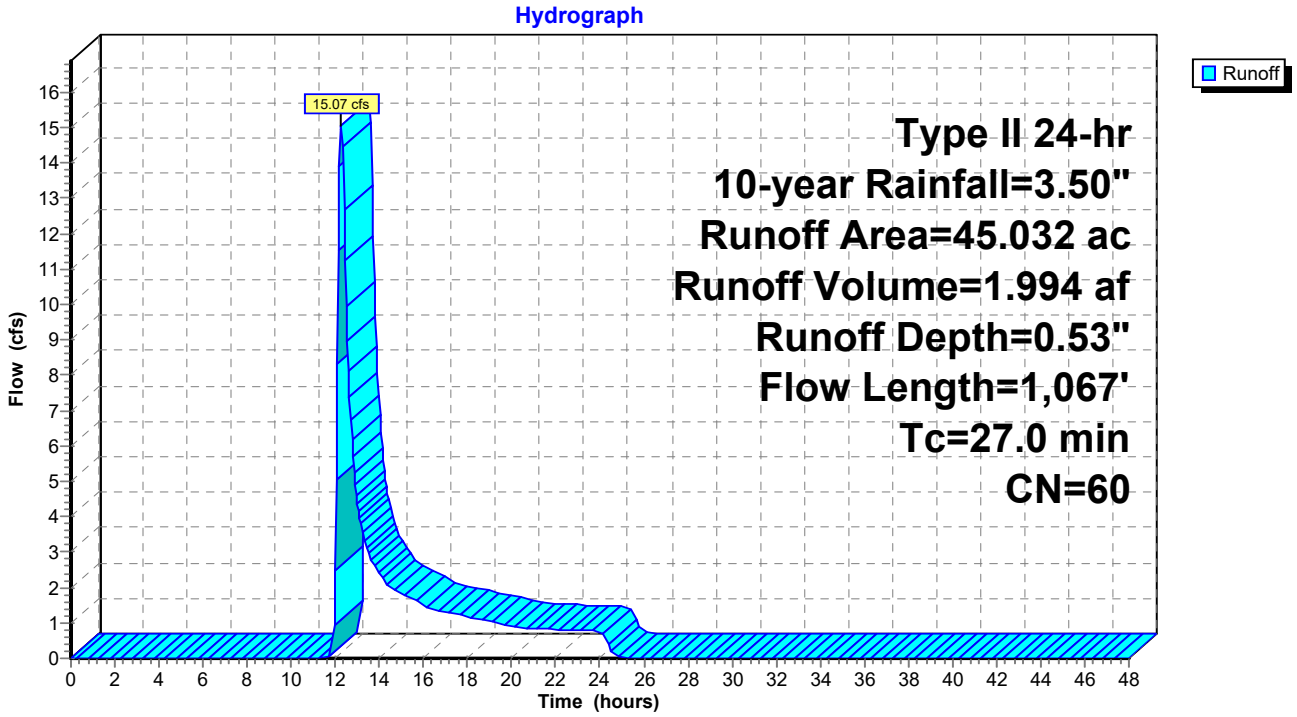
Runoff = 15.07 cfs @ 12.27 hrs, Volume= 1.994 af, Depth= 0.53"
Routed to Link SP42 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
8.572	58	Meadow, non-grazed, HSG B
11.283	71	Meadow, non-grazed, HSG C
23.485	55	Woods, Good, HSG B
1.193	70	Woods, Good, HSG C
0.499	96	Gravel surface, HSG D
45.032	60	Weighted Average
45.032		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.0	140	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	252	0.0080	0.63		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.4	103	0.0290	1.19		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	472	0.2000	2.24		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
27.0	1,067	Total			

Subcatchment 42S: Sub 42



Summary for Subcatchment 48S: Sub 48

[47] Hint: Peak is 268% of capacity of segment #3

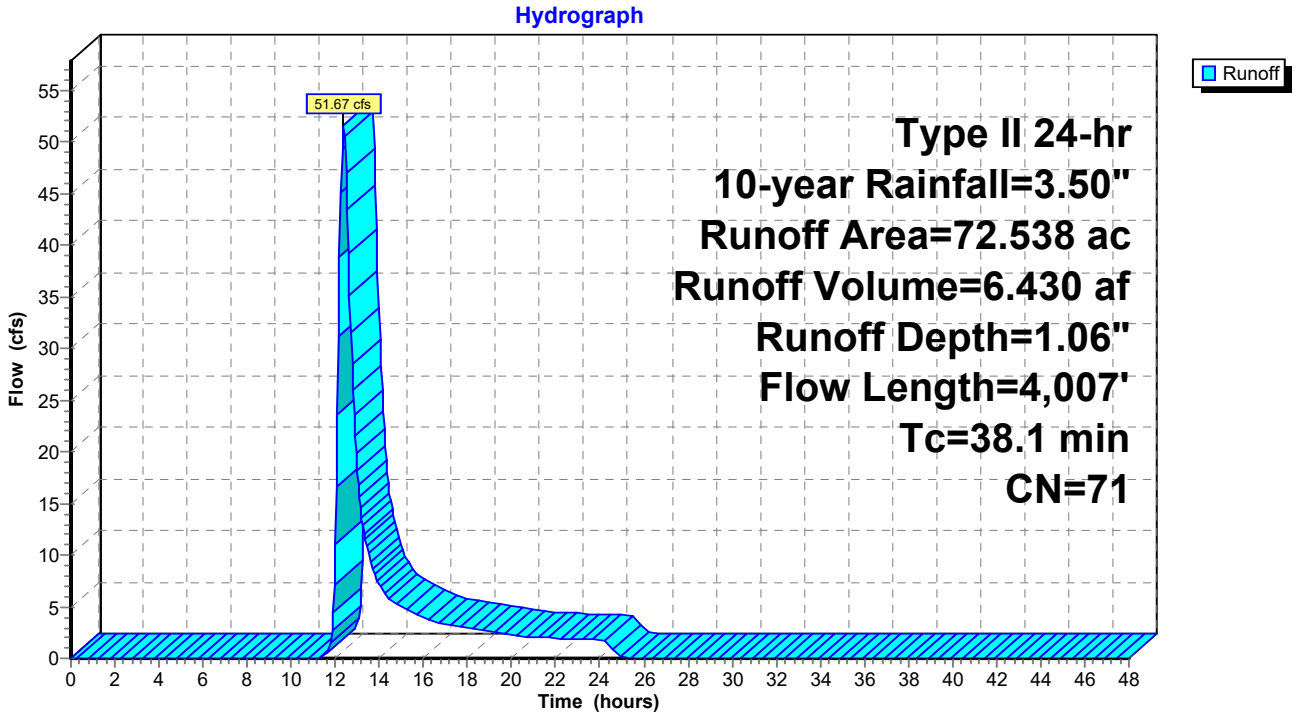
Runoff = 51.67 cfs @ 12.38 hrs, Volume= 6.430 af, Depth= 1.06"
Routed to Link SP48 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	3.557	48	Brush, Good, HSG B
	14.091	65	Brush, Good, HSG C
	7.459	73	Brush, Good, HSG D
*	0.649	96	Gravel surface
*	1.258	98	Impervious Roof and Pavement
	2.103	58	Meadow, non-grazed, HSG B
	26.750	71	Meadow, non-grazed, HSG C
	13.236	78	Meadow, non-grazed, HSG D
	0.333	61	>75% Grass cover, Good, HSG B
	0.615	74	>75% Grass cover, Good, HSG C
	0.563	80	>75% Grass cover, Good, HSG D
	0.543	98	Water Surface, HSG D
	0.355	55	Woods, Good, HSG B
	0.418	70	Woods, Good, HSG C
	0.608	77	Woods, Good, HSG D
	72.538	71	Weighted Average
	70.737		97.52% Pervious Area
	1.801		2.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.0625	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
22.2	1,935	0.0430	1.45		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	1,972	0.0230	3.68	19.31	**Trap/Vee/Rect Channel Flow,** Bot.W=9.00' D=0.50' Z= 3.0 '/' Top.W=12.00' n= 0.035 Earth, dense weeds
38.1	4,007	Total			

Subcatchment 48S: Sub 48



Summary for Subcatchment 49.1S: Sub 49.1

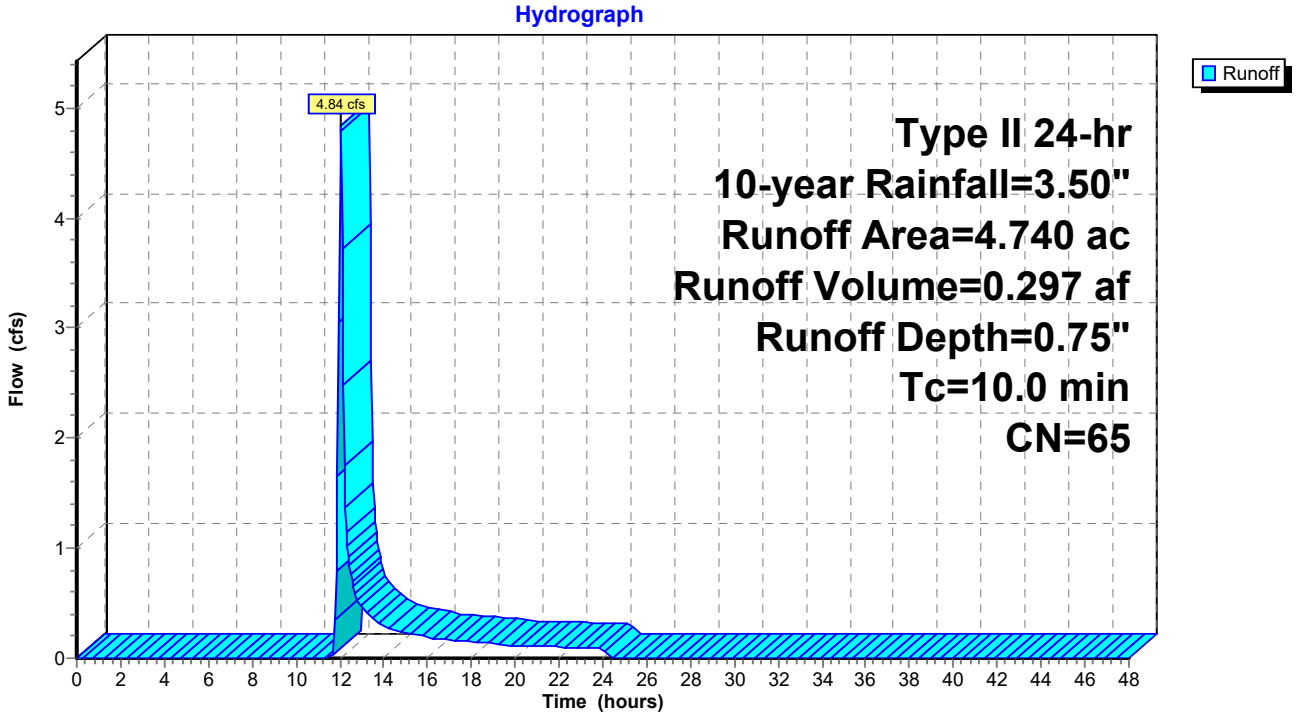
Runoff = 4.84 cfs @ 12.04 hrs, Volume= 0.297 af, Depth= 0.75"
Routed to Pond 49.1P : 49.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	0.971	71	Meadow, non-grazed, HSG C
	1.992	58	Meadow, non-grazed, HSG B
*	0.322	98	Impervious
	0.157	70	Woods, Good, HSG C
	0.095	65	Brush, Good, HSG C
	0.171	48	Brush, Good, HSG B
	0.853	61	>75% Grass cover, Good, HSG B
	0.079	74	>75% Grass cover, Good, HSG C
*	0.100	96	Gravel
	4.740	65	Weighted Average
	4.418		93.21% Pervious Area
	0.322		6.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 49.1S: Sub 49.1



Summary for Subcatchment 49.2S: 49.2S

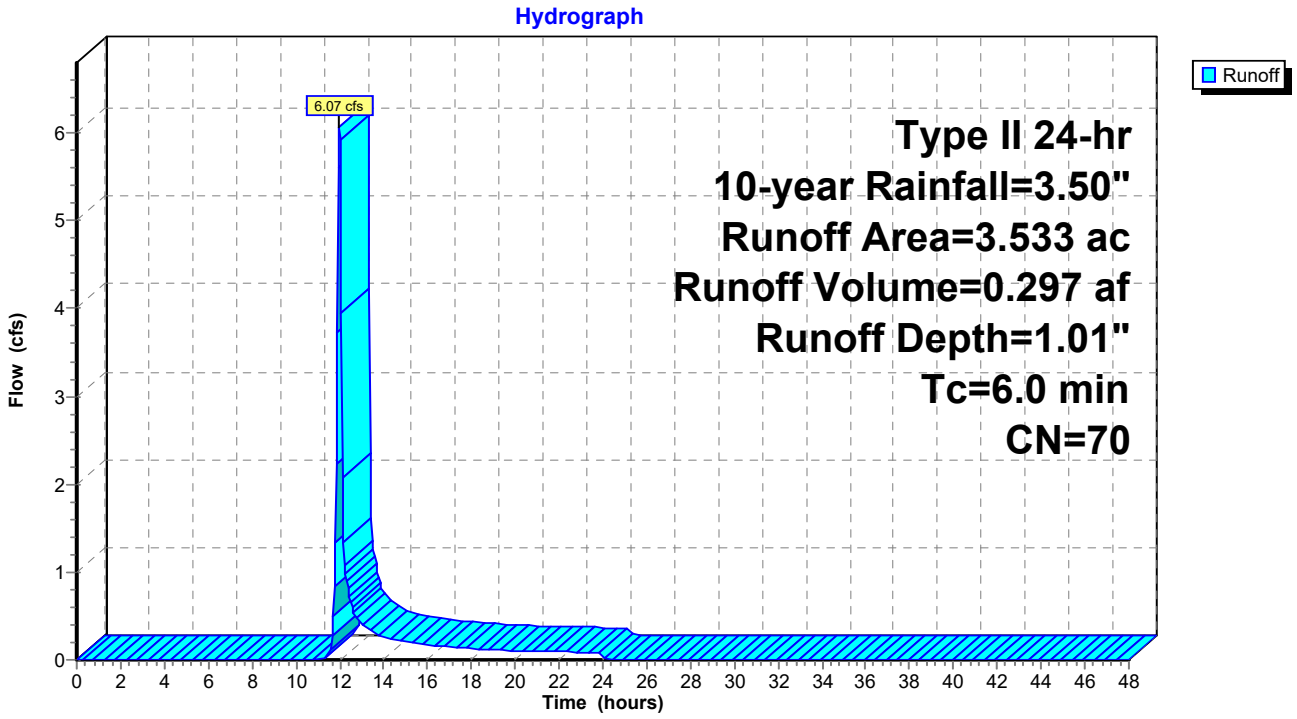
Runoff = 6.07 cfs @ 11.98 hrs, Volume= 0.297 af, Depth= 1.01"
Routed to Pond 49.2P : 49.2S

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	0.083	61	>75% Grass cover, Good, HSG B
	0.181	58	Meadow, non-grazed, HSG B
	3.264	71	Meadow, non-grazed, HSG C
*	0.005	98	Impervious roof
	3.533	70	Weighted Average
	3.528		99.86% Pervious Area
	0.005		0.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 49.2S: 49.2S



Summary for Subcatchment 49S: Sub 49

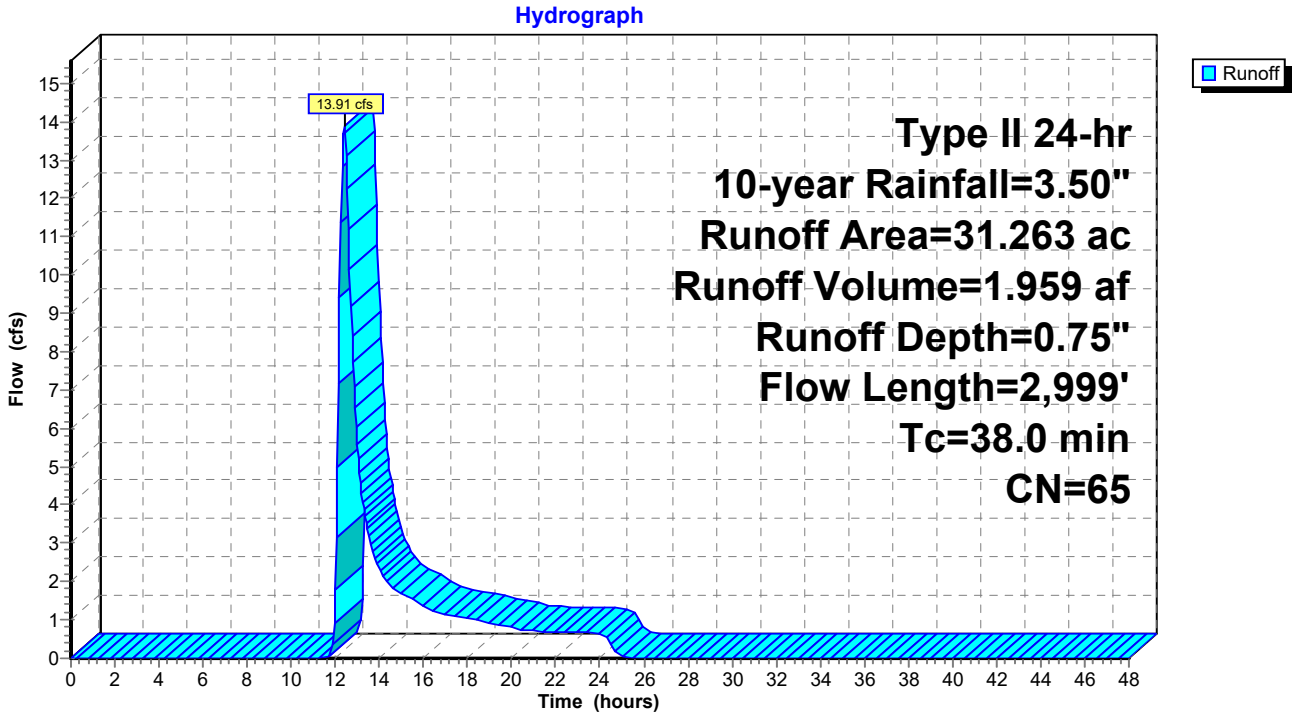
Runoff = 13.91 cfs @ 12.40 hrs, Volume= 1.959 af, Depth= 0.75"
Routed to Reach 42R : S-NSD-16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	1.236	48	Brush, Good, HSG B
	1.046	65	Brush, Good, HSG C
	0.025	73	Brush, Good, HSG D
	0.628	96	Gravel surface, HSG D
*	0.165	98	Impervious
	13.632	58	Meadow, non-grazed, HSG B
	9.560	71	Meadow, non-grazed, HSG C
	2.736	78	Meadow, non-grazed, HSG D
	0.807	61	>75% Grass cover, Good, HSG B
	0.303	74	>75% Grass cover, Good, HSG C
	0.029	98	Water Surface, HSG D
	0.093	55	Woods, Good, HSG B
	0.788	70	Woods, Good, HSG C
	0.215	77	Woods, Good, HSG D
	31.263	65	Weighted Average
	31.069		99.38% Pervious Area
	0.194		0.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0610	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.5	240	0.1520	2.73		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	534	0.1367	2.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	168	0.0506	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.2	561	0.0267	1.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.0	1,396	0.0434	1.46		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
38.0	2,999	Total			

Subcatchment 49S: Sub 49



Summary for Subcatchment 50S: Sub 50

[47] Hint: Peak is 554% of capacity of segment #4

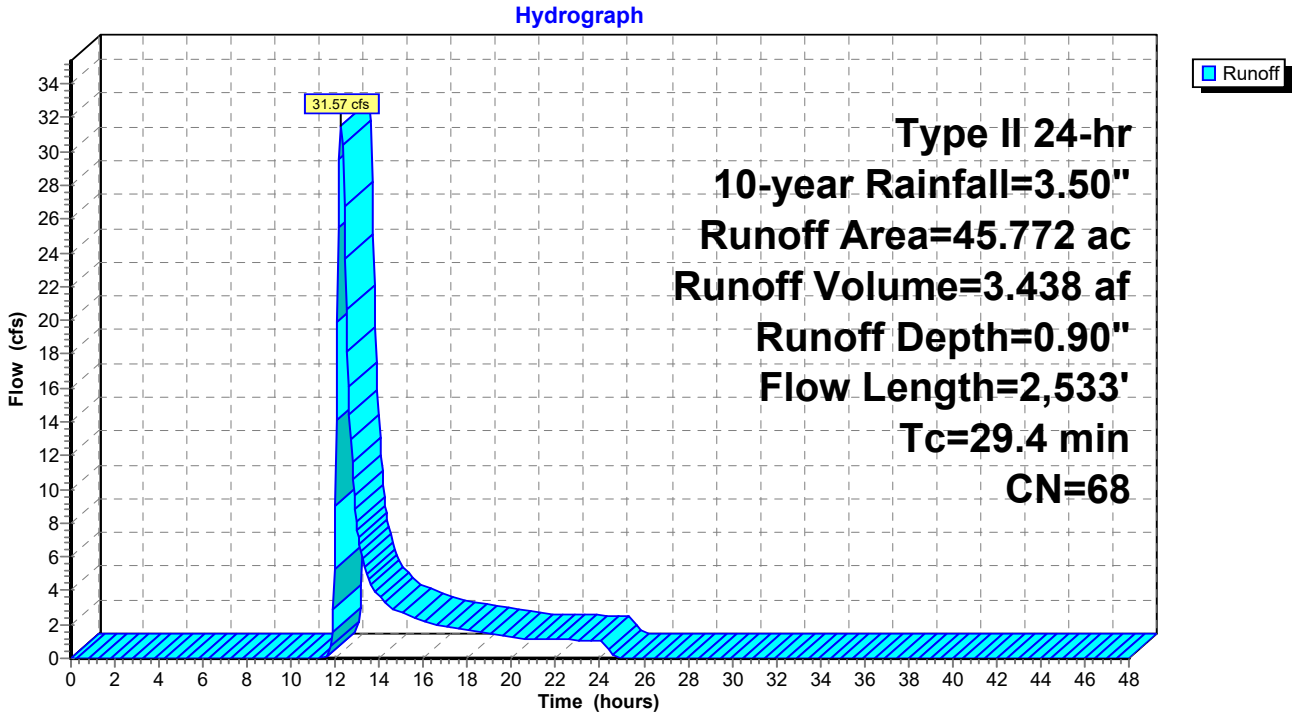
Runoff = 31.57 cfs @ 12.27 hrs, Volume= 3.438 af, Depth= 0.90"
Routed to Link SP50 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.310	48	Brush, Good, HSG B
3.453	65	Brush, Good, HSG C
0.153	73	Brush, Good, HSG D
0.163	98	Unconnected roofs, HSG D
3.338	58	Meadow, non-grazed, HSG B
23.963	71	Meadow, non-grazed, HSG C
2.608	78	Meadow, non-grazed, HSG D
0.409	98	Water Surface, HSG D
5.668	55	Woods, Good, HSG B
5.262	70	Woods, Good, HSG C
0.445	96	Gravel surface, HSG D
45.772	68	Weighted Average
45.200		98.75% Pervious Area
0.572		1.25% Impervious Area
0.163		28.50% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0350	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
8.1	911	0.0710	1.87		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.5	410	0.0330	0.91		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.9	1,112	0.0320	3.80	5.70	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
29.4	2,533	Total			

Subcatchment 50S: Sub 50



Summary for Subcatchment 51.1S: 51.1S

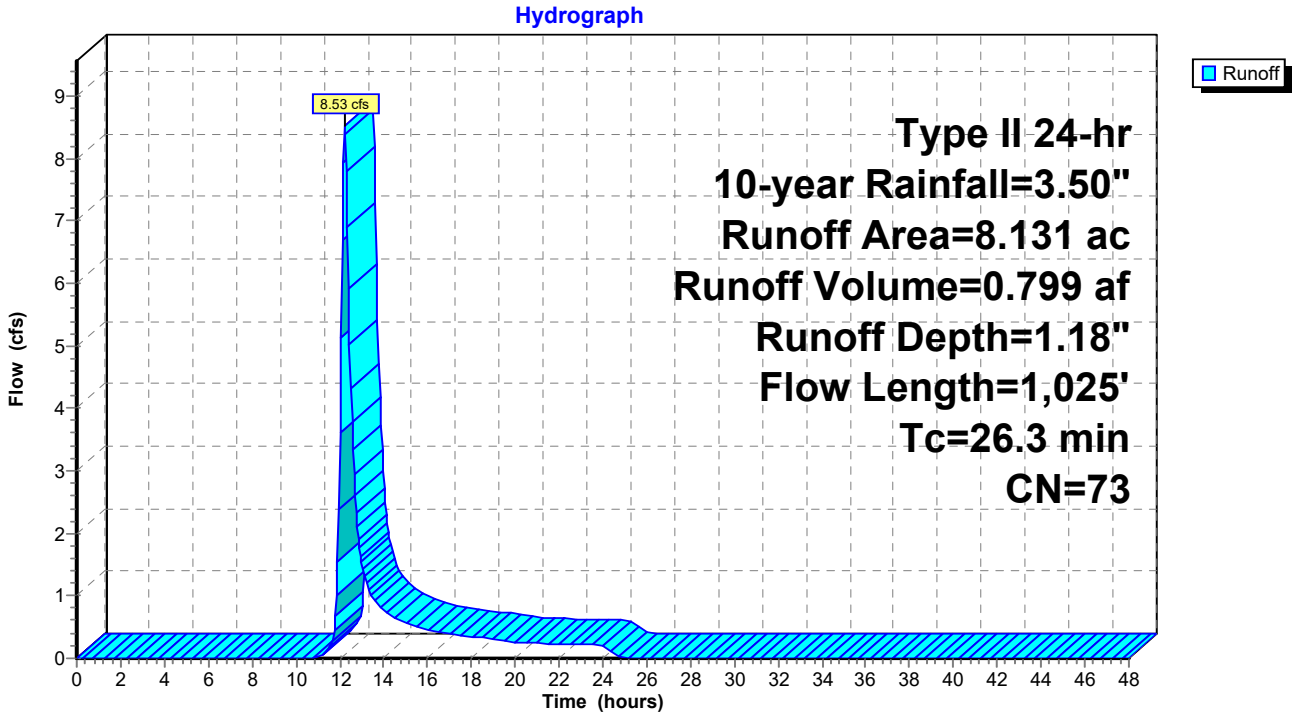
Runoff = 8.53 cfs @ 12.22 hrs, Volume= 0.799 af, Depth= 1.18"
Routed to Pond 51.1P : 51.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
5.714	71	Meadow, non-grazed, HSG C
0.046	70	Woods, Good, HSG C
0.397	74	>75% Grass cover, Good, HSG C
0.096	65	Brush, Good, HSG C
0.109	73	Brush, Good, HSG D
1.769	78	Meadow, non-grazed, HSG D
8.131	73	Weighted Average
8.131		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0070	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.4	334	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	591	0.1250	2.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
26.3	1,025	Total			

Subcatchment 51.1S: 51.1S



Summary for Subcatchment 51S: Sub 51

[47] Hint: Peak is 236% of capacity of segment #6
[47] Hint: Peak is 236% of capacity of segment #8

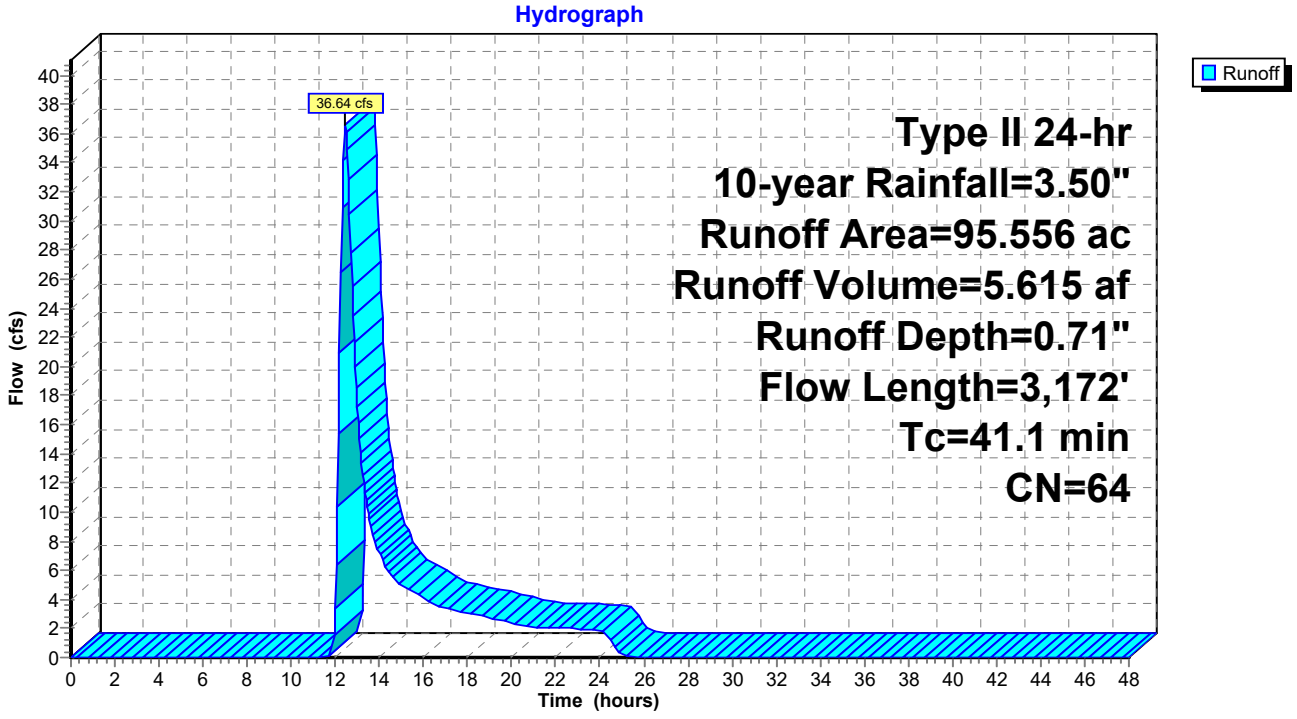
Runoff = 36.64 cfs @ 12.45 hrs, Volume= 5.615 af, Depth= 0.71"
Routed to Link SP51 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.877	48	Brush, Good, HSG B
0.779	65	Brush, Good, HSG C
0.113	73	Brush, Good, HSG D
2.071	96	Gravel surface, HSG D
0.729	98	Unconnected roofs, HSG D
48.224	58	Meadow, non-grazed, HSG B
33.849	71	Meadow, non-grazed, HSG C
0.806	78	Meadow, non-grazed, HSG D
2.719	61	>75% Grass cover, Good, HSG B
0.732	74	>75% Grass cover, Good, HSG C
1.610	55	Woods, Good, HSG B
2.912	70	Woods, Good, HSG C
0.135	77	Woods, Good, HSG D
95.556	64	Weighted Average
94.827		99.24% Pervious Area
0.729		0.76% Impervious Area
0.729		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.7	108	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.4	513	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.3	1,142	0.0860	2.05		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.0	543	0.0460	1.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	34	0.0580	12.68	15.56	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	162	0.0250	1.11		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	34	0.0580	12.68	15.56	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
5.3	392	0.0310	1.23		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	144	0.0420	1.02		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
41.1	3,172	Total			

Subcatchment 51S: Sub 51



Summary for Subcatchment 52.1S: 52.1S

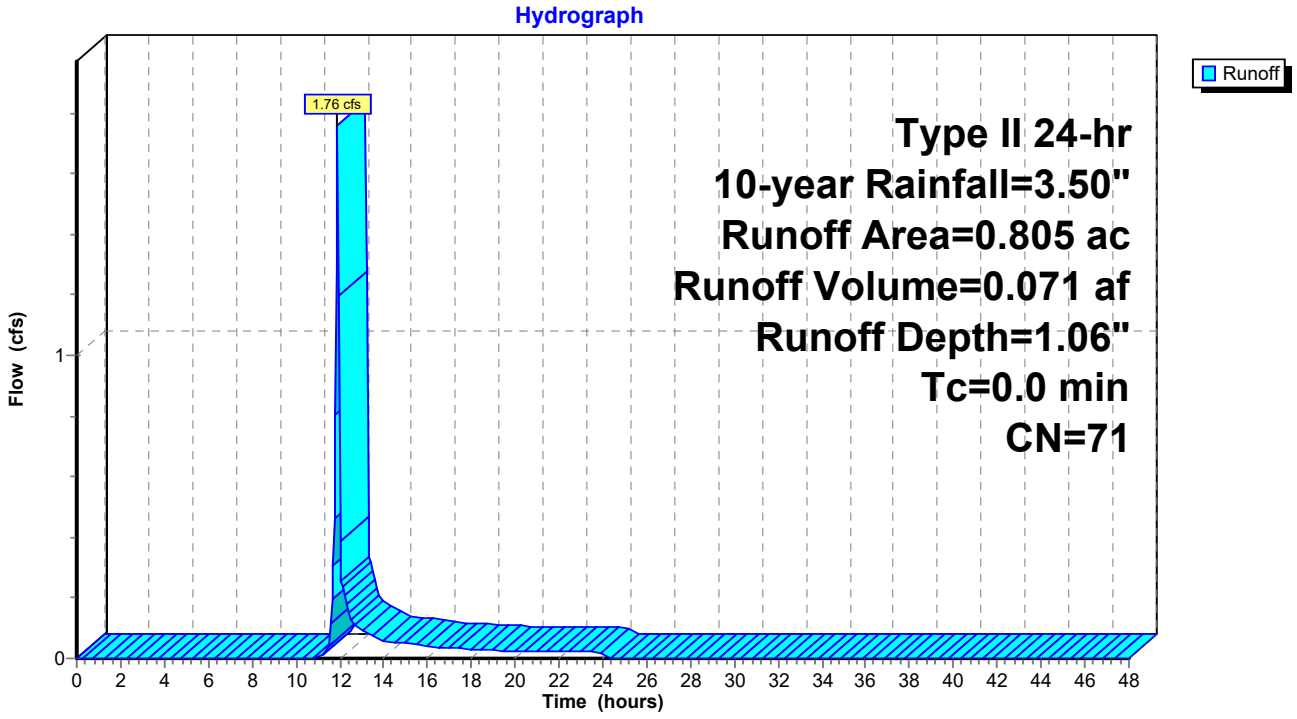
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 1.76 cfs @ 11.90 hrs, Volume= 0.071 af, Depth= 1.06"
Routed to Pond 52.1P : 52.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.805	71	Meadow, non-grazed, HSG C
0.805		100.00% Pervious Area

Subcatchment 52.1S: 52.1S



Summary for Subcatchment 52S: Sub 52

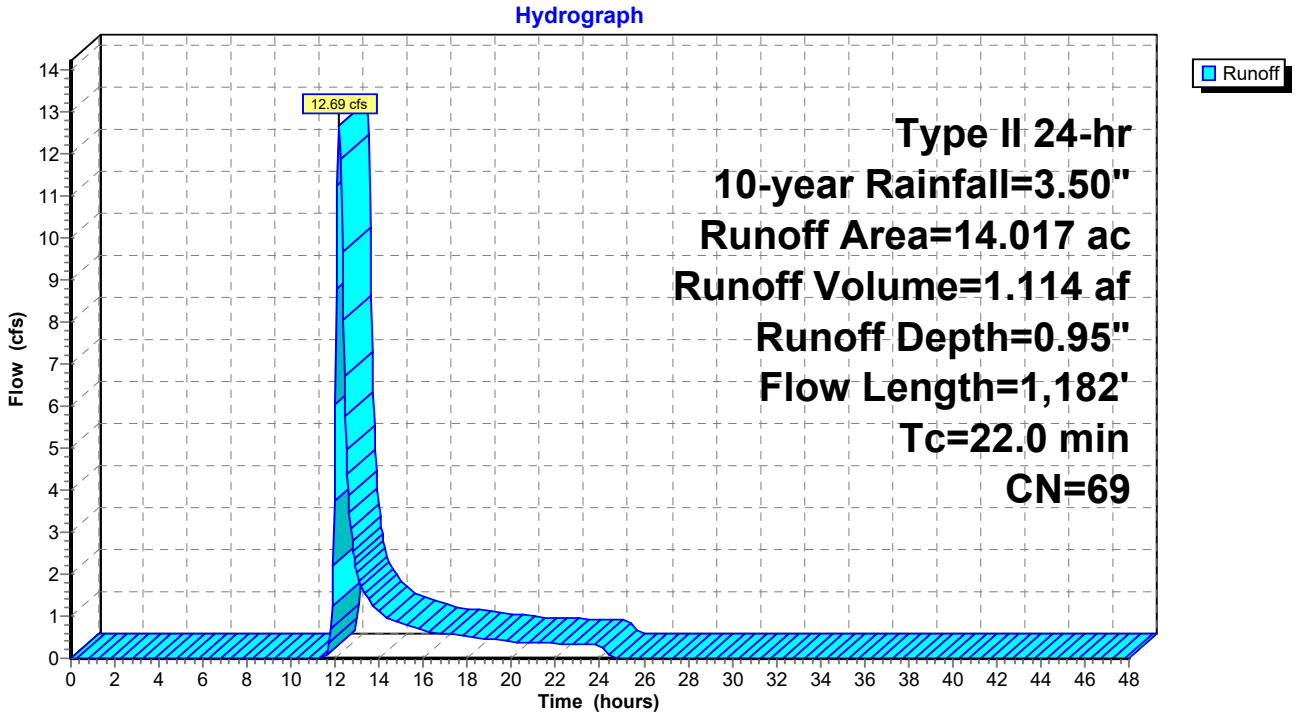
Runoff = 12.69 cfs @ 12.17 hrs, Volume= 1.114 af, Depth= 0.95"
Routed to Link SP52 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.561	48	Brush, Good, HSG B
0.166	73	Brush, Good, HSG D
1.696	58	Meadow, non-grazed, HSG B
9.328	71	Meadow, non-grazed, HSG C
0.646	78	Meadow, non-grazed, HSG D
0.413	98	Water Surface, HSG D
0.321	55	Woods, Good, HSG B
0.736	70	Woods, Good, HSG C
0.150	96	Gravel surface, HSG D
14.017	69	Weighted Average
13.604		97.05% Pervious Area
0.413		2.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
8.1	993	0.0850	2.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	89	0.0112	0.53		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.0	1,182	Total			

Subcatchment 52S: Sub 52



Summary for Subcatchment 53S: Sub 53

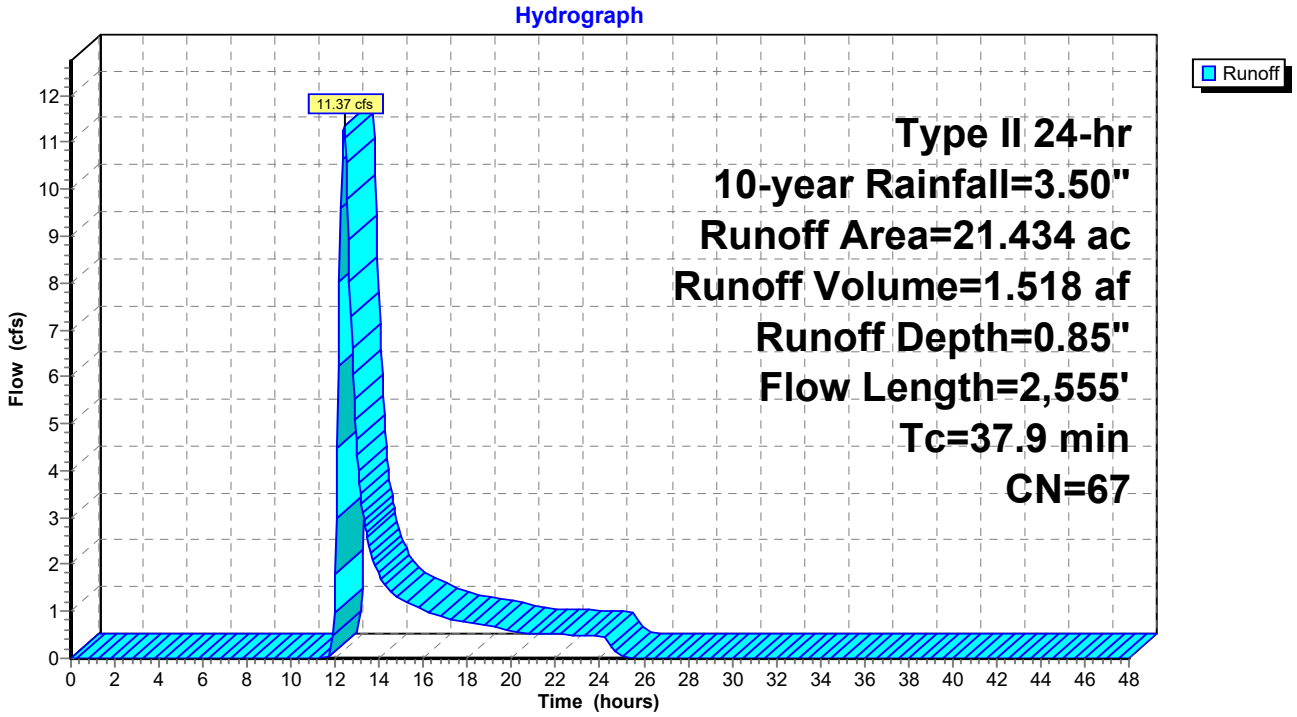
Runoff = 11.37 cfs @ 12.39 hrs, Volume= 1.518 af, Depth= 0.85"
Routed to Link SP53 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
1.579	48	Brush, Good, HSG B
0.985	65	Brush, Good, HSG C
4.027	58	Meadow, non-grazed, HSG B
13.862	71	Meadow, non-grazed, HSG C
0.386	98	Water Surface, HSG D
0.250	70	Woods, Good, HSG C
0.345	96	Gravel surface, HSG D
21.434	67	Weighted Average
21.048		98.20% Pervious Area
0.386		1.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.4	347	0.1210	2.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	151	0.1656	2.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
19.3	1,511	0.0347	1.30		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.7	446	0.2690	11.02	16.53	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
37.9	2,555	Total			

Subcatchment 53S: Sub 53



Summary for Subcatchment 54S: Sub 54

[47] Hint: Peak is 373% of capacity of segment #5

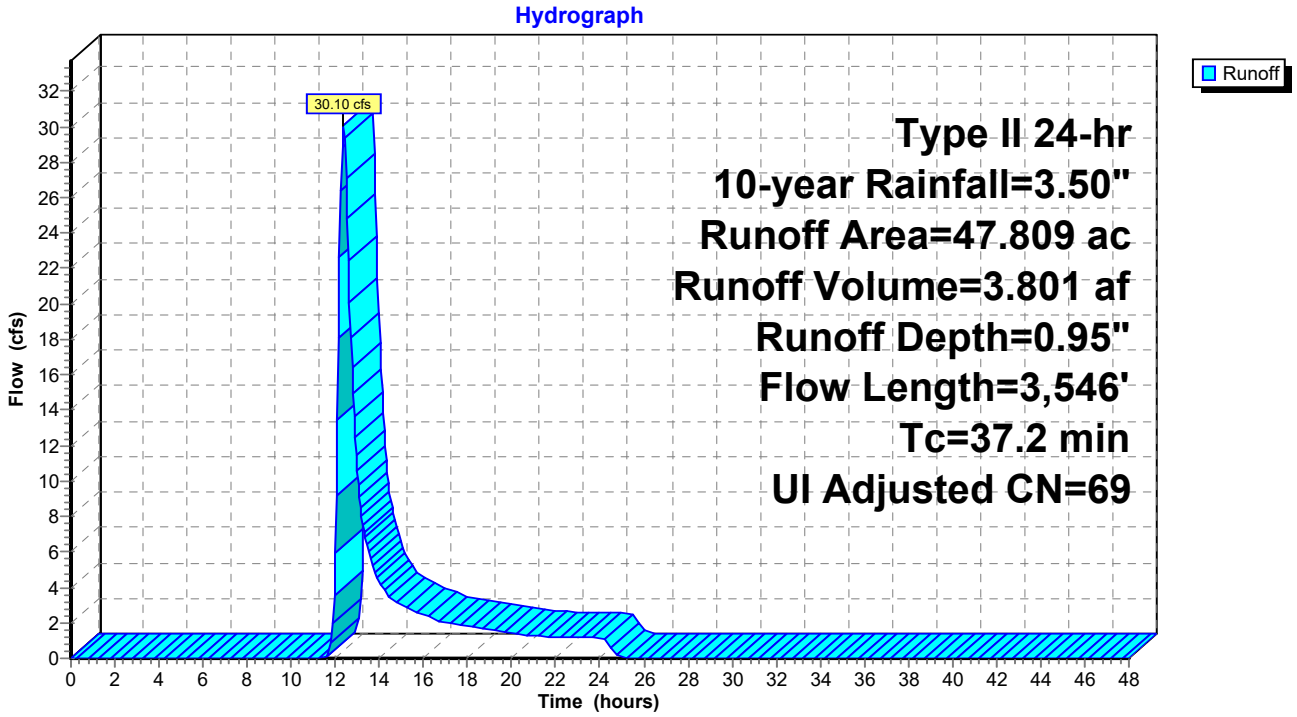
Runoff = 30.10 cfs @ 12.37 hrs, Volume= 3.801 af, Depth= 0.95"
Routed to Link SP54 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Adj	Description
2.214	48		Brush, Good, HSG B
4.952	65		Brush, Good, HSG C
2.646	98		Unconnected roofs, HSG D
5.345	58		Meadow, non-grazed, HSG B
23.606	71		Meadow, non-grazed, HSG C
2.360	61		>75% Grass cover, Good, HSG B
5.016	74		>75% Grass cover, Good, HSG C
1.095	98		Water Surface, HSG D
0.017	55		Woods, Good, HSG B
0.558	96		Gravel surface, HSG D
47.809	70	69	Weighted Average, UI Adjusted
44.068			92.18% Pervious Area
3.741			7.82% Impervious Area
2.646			70.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.0500	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.2	964	0.0420	1.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	166	0.0420	1.02		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	321	0.0312	2.84		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
13.7	1,995	0.0253	2.42	8.07	**Parabolic Channel,** W=5.00' D=1.00' Area=3.3 sf Perim=5.5' n= 0.070 Sluggish weedy reaches w/pools
37.2	3,546	Total			

Subcatchment 54S: Sub 54



Summary for Subcatchment 55S: Sub 55

[47] Hint: Peak is 150% of capacity of segment #5

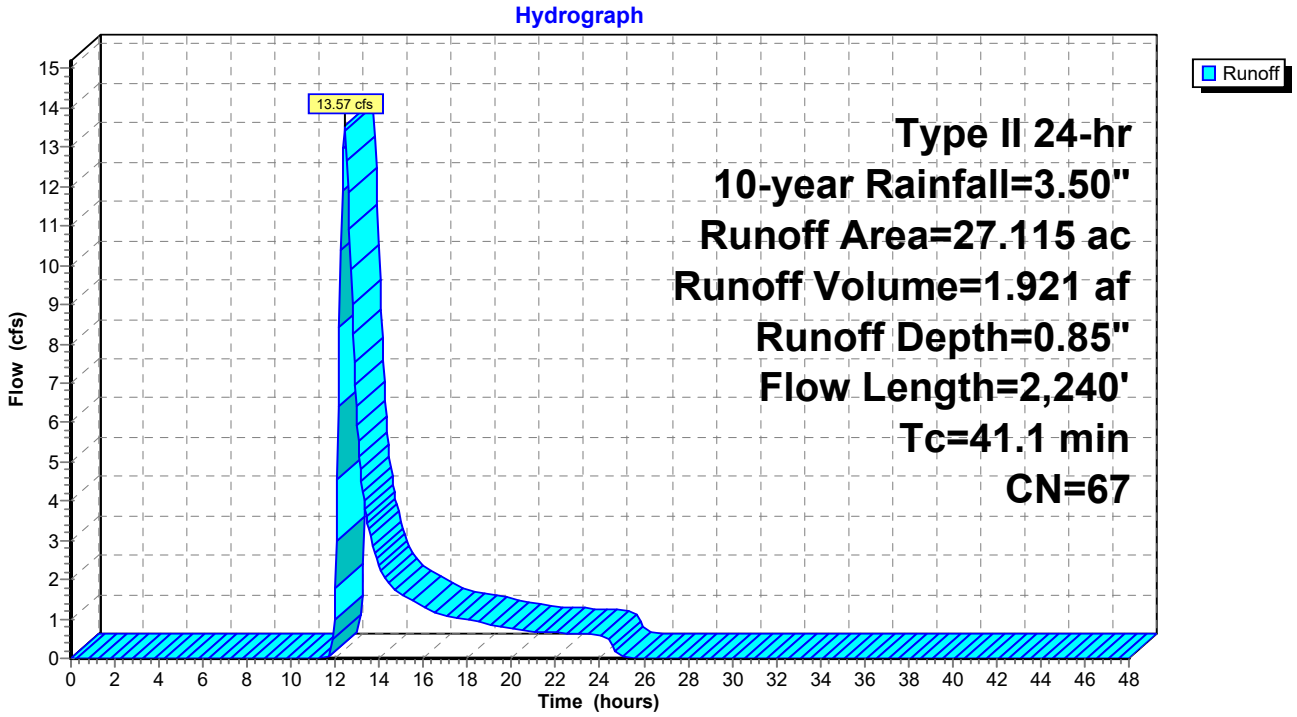
Runoff = 13.57 cfs @ 12.44 hrs, Volume= 1.921 af, Depth= 0.85"
Routed to Link SP55 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.417	48	Brush, Good, HSG B
0.206	65	Brush, Good, HSG C
0.193	98	Unconnected roofs, HSG D
9.181	58	Meadow, non-grazed, HSG B
16.245	71	Meadow, non-grazed, HSG C
0.190	55	Woods, Good, HSG B
0.236	70	Woods, Good, HSG C
0.447	96	Gravel surface, HSG D
27.115	67	Weighted Average
26.922		99.29% Pervious Area
0.193		0.71% Impervious Area
0.193		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.2	289	0.0970	2.18		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.4	730	0.0340	1.29		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.6	647	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	474	0.0527	3.39	9.05	**Parabolic Channel,** W=4.00' D=1.00' Area=2.7 sf Perim=4.6' n= 0.070 Sluggish weedy reaches w/pools
41.1	2,240	Total			

Subcatchment 55S: Sub 55



Summary for Subcatchment 56.1S: 56.1S

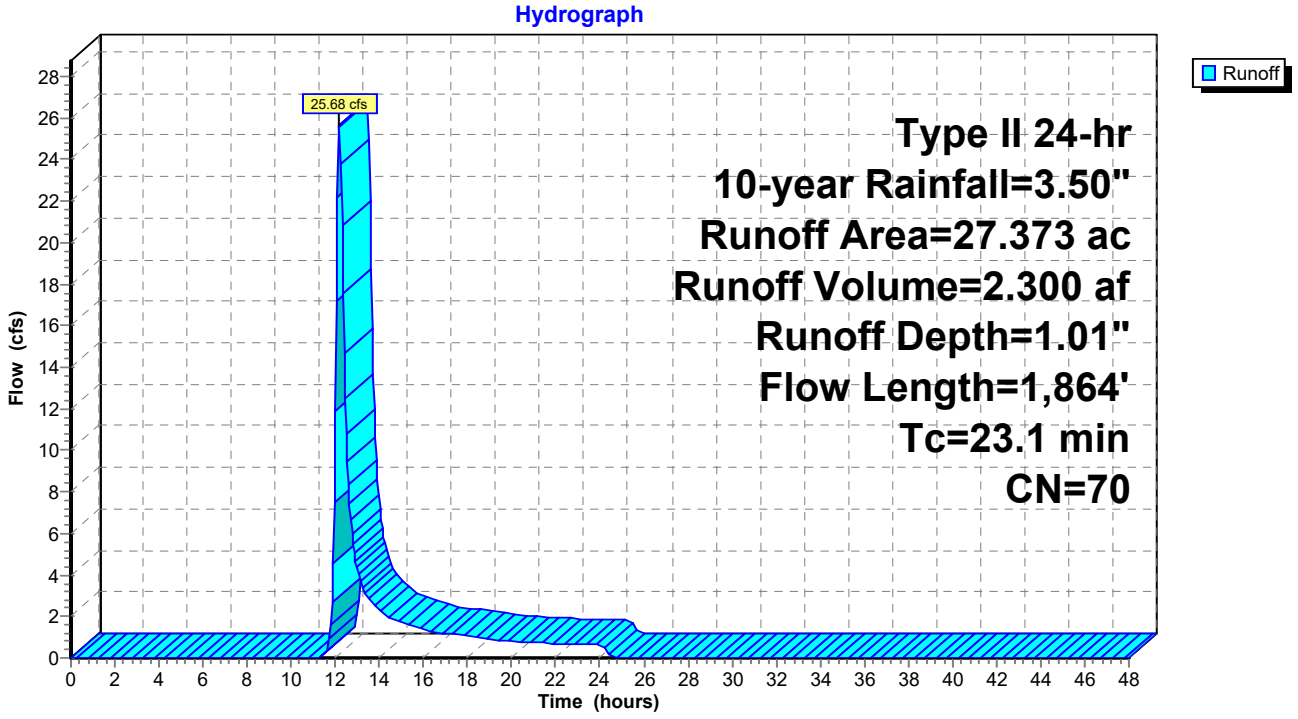
Runoff = 25.68 cfs @ 12.18 hrs, Volume= 2.300 af, Depth= 1.01"
Routed to Pond 56.1P : 56.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

	Area (ac)	CN	Description
	3.169	58	Meadow, non-grazed, HSG B
*	0.806	96	Gravel
	23.398	71	Meadow, non-grazed, HSG C
	27.373	70	Weighted Average
	27.373		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
7.7	1,108	0.1160	2.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.0	656	0.0670	1.81		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
23.1	1,864	Total			

Subcatchment 56.1S: 56.1S



Summary for Subcatchment 56S: Sub 56

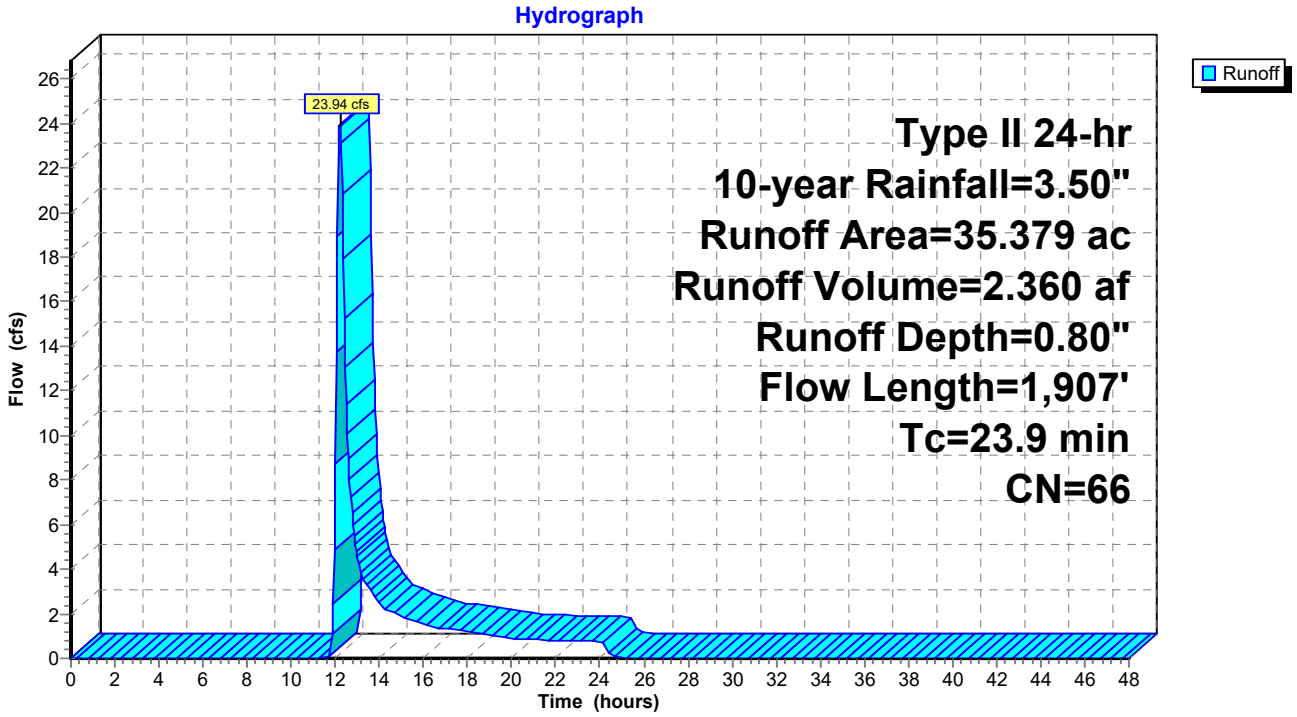
Runoff = 23.94 cfs @ 12.21 hrs, Volume= 2.360 af, Depth= 0.80"
Routed to Link SP56 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.50"

Area (ac)	CN	Description
0.895	48	Brush, Good, HSG B
1.460	65	Brush, Good, HSG C
10.196	58	Meadow, non-grazed, HSG B
15.876	71	Meadow, non-grazed, HSG C
1.244	55	Woods, Good, HSG B
5.708	70	Woods, Good, HSG C
35.379	66	Weighted Average
35.379		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0430	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.6	139	0.0430	1.45		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	369	0.1030	2.25		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	533	0.0820	2.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	206	0.2900	3.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.6	468	0.0580	1.69		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.5	92	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
23.9	1,907	Total			

Subcatchment 56S: Sub 56



Summary for Reach 33R:

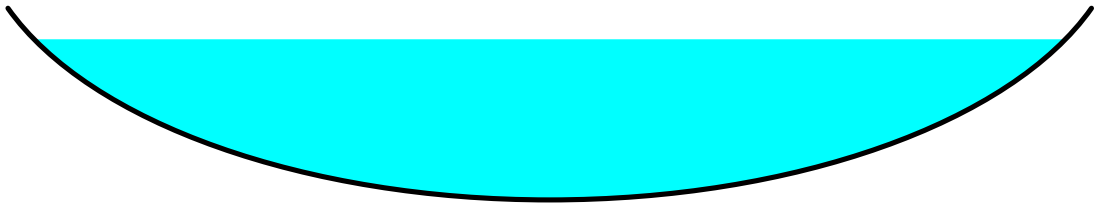
[79] Warning: Submerged Pond 34P Primary device # 1 OUTLET by 0.84'

Inflow Area = 25.795 ac, 1.16% Impervious, Inflow Depth = 0.62" for 10-year event
Inflow = 7.80 cfs @ 12.42 hrs, Volume= 1.323 af
Outflow = 7.28 cfs @ 12.87 hrs, Volume= 1.323 af, Atten= 7%, Lag= 27.1 min
Routed to Link SP34 :

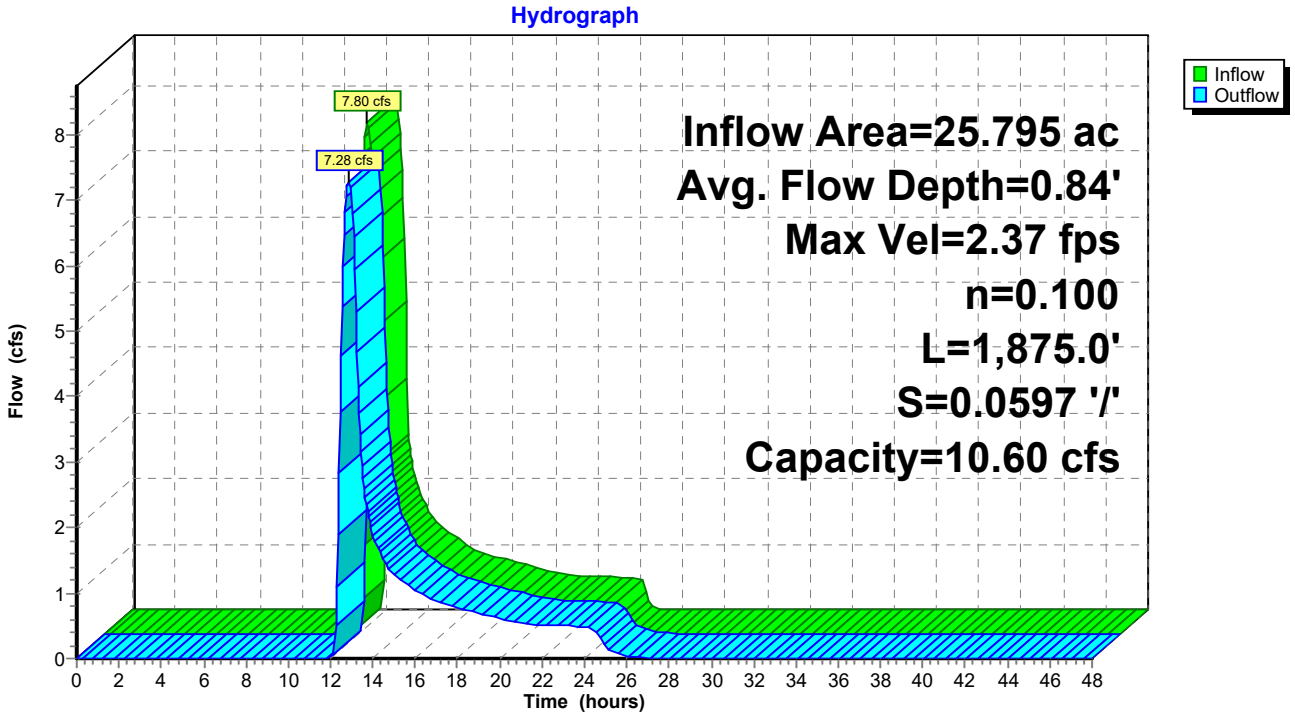
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.37 fps, Min. Travel Time= 13.2 min
Avg. Velocity = 0.58 fps, Avg. Travel Time= 53.7 min

Peak Storage= 5,761 cf @ 12.65 hrs
Average Depth at Peak Storage= 0.84' , Surface Width= 5.49'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 10.60 cfs

6.00' x 1.00' deep Parabolic Channel, n= 0.100 Earth, dense brush, high stage
Length= 1,875.0' Slope= 0.0597 '/'
Inlet Invert= 578.00', Outlet Invert= 466.00'



Reach 33R:



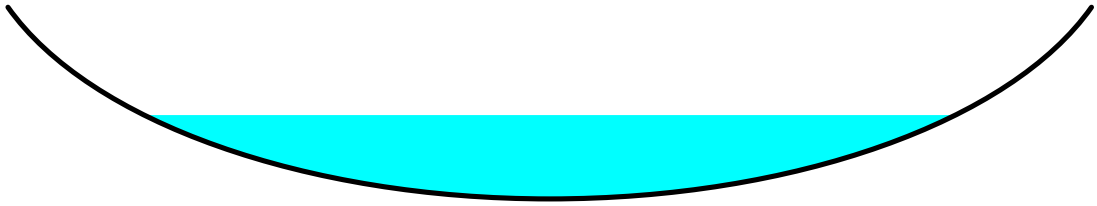
Summary for Reach 39R:

Inflow Area = 20.880 ac, 7.94% Impervious, Inflow Depth = 0.95" for 10-year event
Inflow = 15.72 cfs @ 12.26 hrs, Volume= 1.660 af
Outflow = 14.73 cfs @ 12.43 hrs, Volume= 1.660 af, Atten= 6%, Lag= 10.4 min
Routed to Link SP39 :

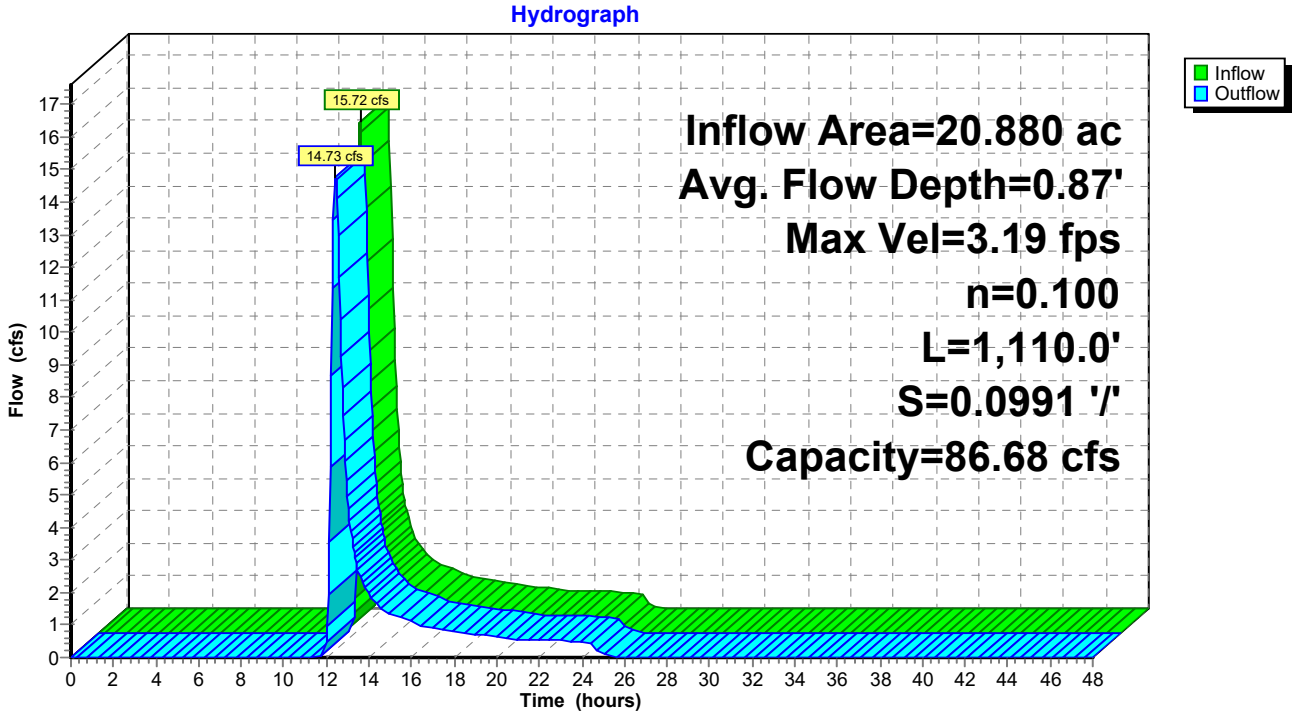
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.19 fps, Min. Travel Time= 5.8 min
Avg. Velocity = 1.00 fps, Avg. Travel Time= 18.5 min

Peak Storage= 5,125 cf @ 12.34 hrs
Average Depth at Peak Storage= 0.87' , Surface Width= 7.93'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 86.68 cfs

12.00' x 2.00' deep Parabolic Channel, n= 0.100 Earth, dense brush, high stage
Length= 1,110.0' Slope= 0.0991 '/'
Inlet Invert= 526.00', Outlet Invert= 416.00'



Reach 39R:



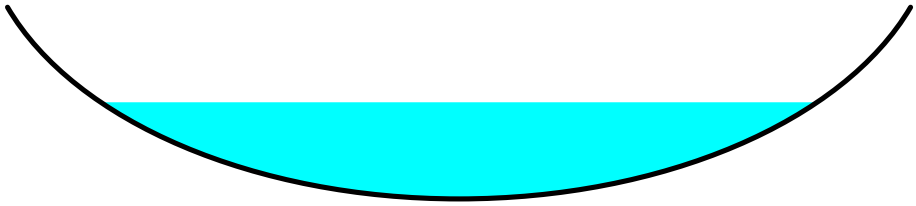
Summary for Reach 42R: S-NSD-16

Inflow Area = 31.263 ac, 0.62% Impervious, Inflow Depth = 0.75" for 10-year event
Inflow = 13.91 cfs @ 12.40 hrs, Volume= 1.959 af
Outflow = 12.08 cfs @ 12.76 hrs, Volume= 1.959 af, Atten= 13%, Lag= 21.3 min
Routed to Link SP42 :

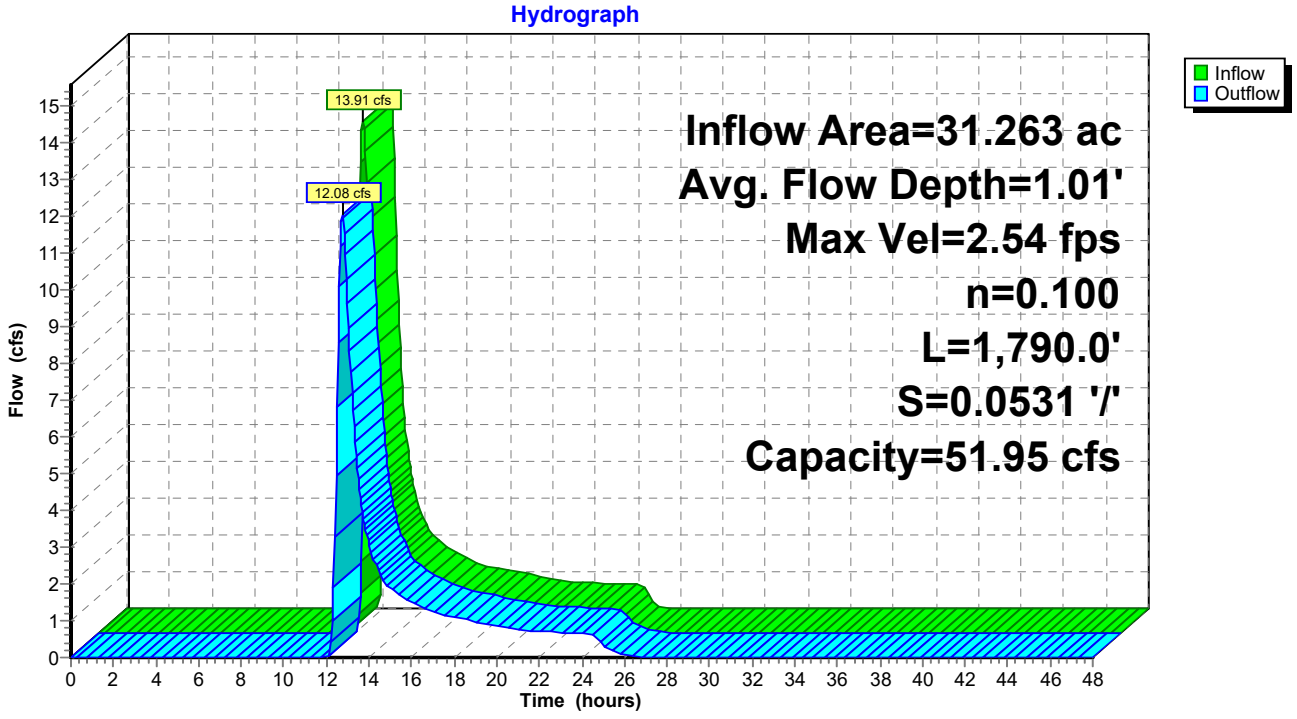
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.54 fps, Min. Travel Time= 11.8 min
Avg. Velocity = 0.70 fps, Avg. Travel Time= 42.6 min

Peak Storage= 8,527 cf @ 12.56 hrs
Average Depth at Peak Storage= 1.01' , Surface Width= 7.10'
Bank-Full Depth= 2.00' Flow Area= 13.3 sf, Capacity= 51.95 cfs

10.00' x 2.00' deep Parabolic Channel, n= 0.100 Earth, dense brush, high stage
Length= 1,790.0' Slope= 0.0531 '/'
Inlet Invert= 470.00', Outlet Invert= 375.00'



Reach 42R: S-NSD-16



Summary for Pond 25.1P: 25.1P

Inflow Area = 3.422 ac, 0.00% Impervious, Inflow Depth = 1.01" for 10-year event
Inflow = 4.59 cfs @ 12.06 hrs, Volume= 0.287 af
Outflow = 0.33 cfs @ 13.52 hrs, Volume= 0.198 af, Atten= 93%, Lag= 87.8 min
Primary = 0.33 cfs @ 13.52 hrs, Volume= 0.198 af
Routed to Link SP25 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP25 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 605.04' @ 13.52 hrs Surf.Area= 6,351 sf Storage= 6,104 cf

Plug-Flow detention time= 336.1 min calculated for 0.197 af (69% of inflow)
Center-of-Mass det. time= 220.3 min (1,092.3 - 872.0)

Volume	Invert	Avail.Storage	Storage Description
#1	604.00'	20,422 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

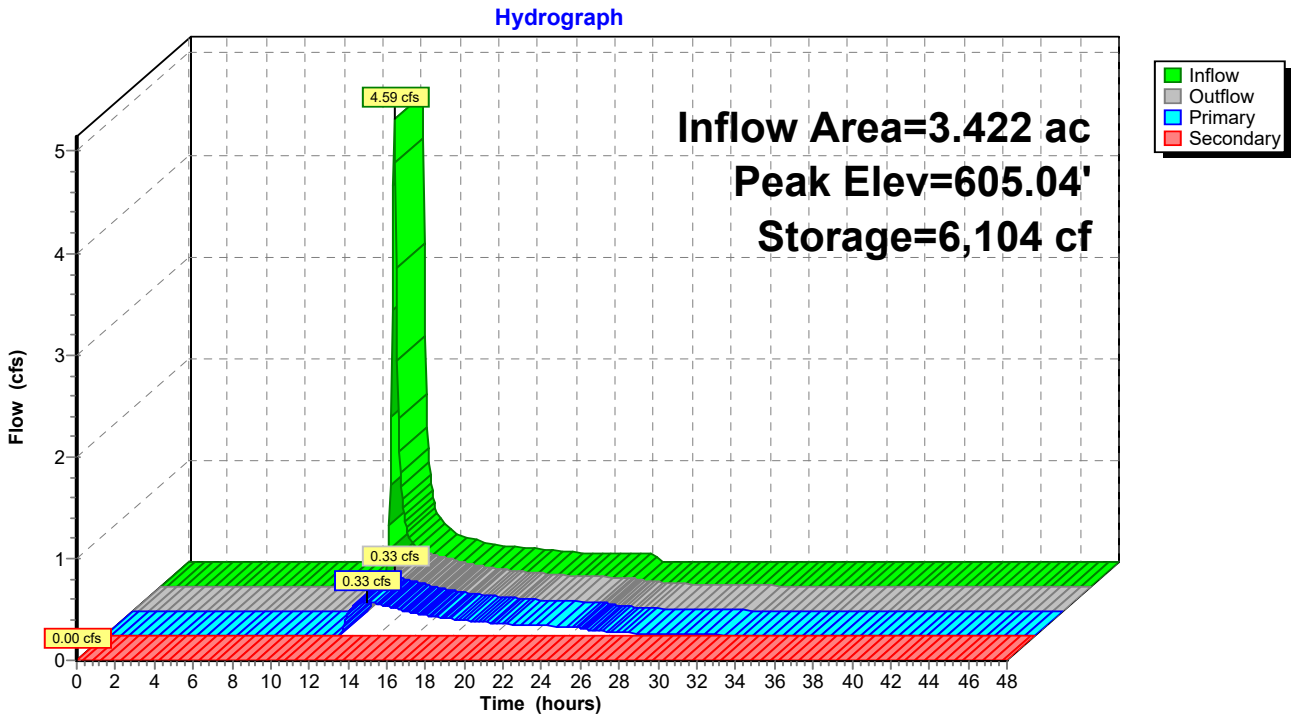
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
604.00	5,355	0	0
605.00	6,309	5,832	5,832
606.00	7,289	6,799	12,631
607.00	8,293	7,791	20,422

Device	Routing	Invert	Outlet Devices
#1	Primary	604.00'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 604.00' / 603.50' S= 0.0250 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	604.67'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	606.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	606.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.33 cfs @ 13.52 hrs HW=605.04' (Free Discharge)
└**1=Culvert** (Passes 0.33 cfs of 2.20 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.33 cfs @ 2.08 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=604.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 25.1P: 25.1P



Summary for Pond 27.1P: 27.1P

Inflow Area = 3.749 ac, 0.00% Impervious, Inflow Depth = 1.06" for 10-year event
Inflow = 4.91 cfs @ 12.08 hrs, Volume= 0.332 af
Outflow = 0.15 cfs @ 17.70 hrs, Volume= 0.119 af, Atten= 97%, Lag= 337.1 min
Primary = 0.15 cfs @ 17.70 hrs, Volume= 0.119 af
Routed to Link SP27 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP27 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 553.14' @ 17.70 hrs Surf.Area= 4,235 sf Storage= 10,490 cf

Plug-Flow detention time= 527.5 min calculated for 0.119 af (36% of inflow)
Center-of-Mass det. time= 379.6 min (1,250.4 - 870.8)

Volume	Invert	Avail.Storage	Storage Description
#1	550.00'	14,360 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

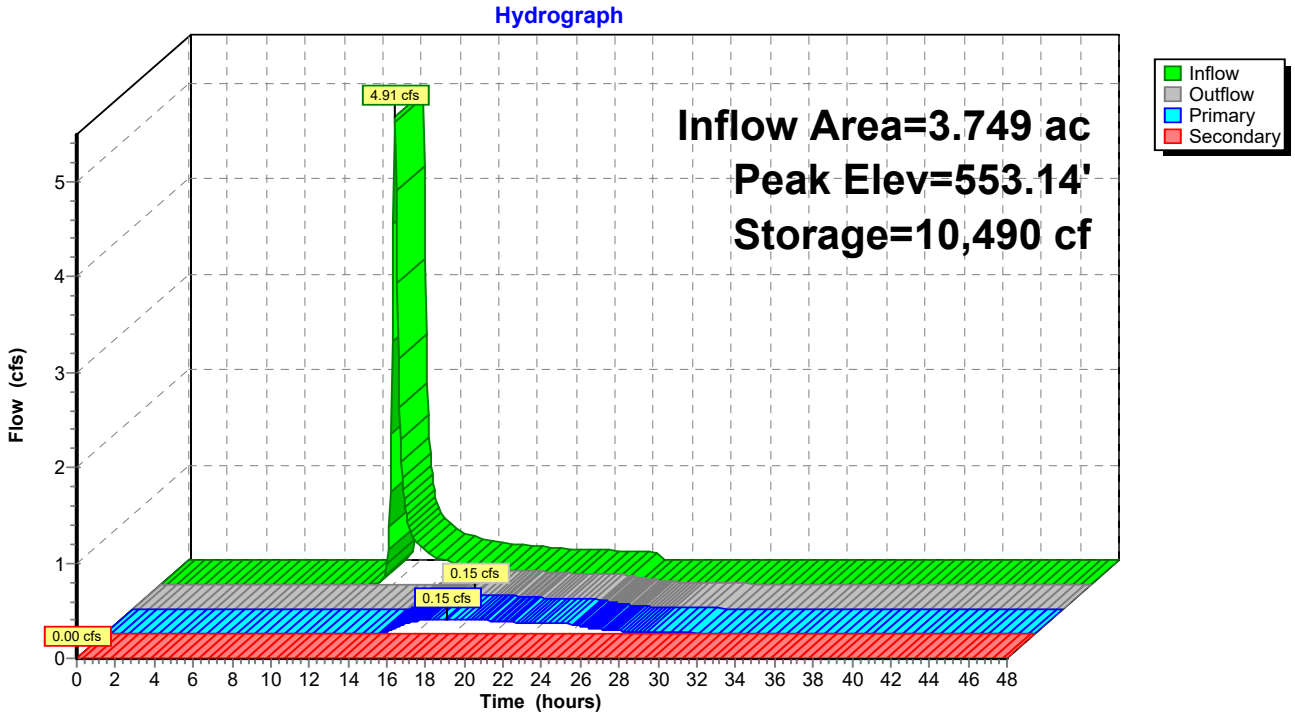
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
550.00	2,458	0	0
551.00	3,040	2,749	2,749
552.00	3,560	3,300	6,049
553.00	4,149	3,855	9,904
554.00	4,763	4,456	14,360

Device	Routing	Invert	Outlet Devices
#1	Primary	550.00'	**18.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 550.00' / 549.50' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	552.84'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	553.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	553.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.15 cfs @ 17.70 hrs HW=553.14' (Free Discharge)
└**1=Culvert** (Passes 0.15 cfs of 10.38 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.15 cfs @ 1.86 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=550.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 27.1P: 27.1P



Summary for Pond 28.1P: 28.1P

Inflow Area = 2.160 ac, 0.00% Impervious, Inflow Depth = 1.06" for 10-year event
Inflow = 3.15 cfs @ 12.05 hrs, Volume= 0.191 af
Outflow = 0.07 cfs @ 19.25 hrs, Volume= 0.055 af, Atten= 98%, Lag= 432.1 min
Primary = 0.07 cfs @ 19.25 hrs, Volume= 0.055 af
Routed to Link SP28 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP28 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 559.67' @ 19.25 hrs Surf.Area= 4,474 sf Storage= 6,649 cf

Plug-Flow detention time= 626.4 min calculated for 0.055 af (28% of inflow)
Center-of-Mass det. time= 478.2 min (1,346.4 - 868.2)

Volume	Invert	Avail.Storage	Storage Description
#1	558.00'	13,151 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

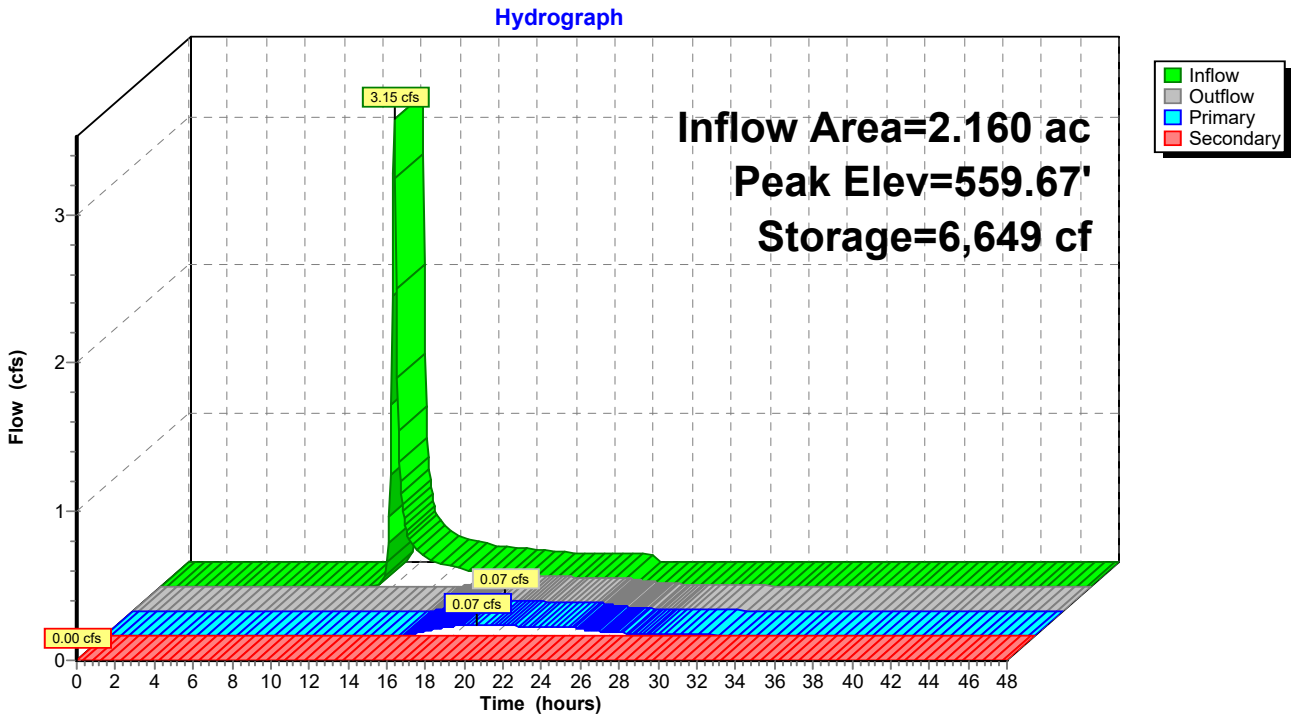
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
558.00	3,511	0	0
559.00	4,080	3,796	3,796
560.00	4,671	4,376	8,171
561.00	5,288	4,980	13,151

Device	Routing	Invert	Outlet Devices
#1	Primary	558.00'	**12.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 558.00' / 557.75' S= 0.0114 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	559.50'	**5.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	560.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	560.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.07 cfs @ 19.25 hrs HW=559.67' (Free Discharge)
└**1=Culvert** (Passes 0.07 cfs of 3.23 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.07 cfs @ 1.39 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=558.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 28.1P: 28.1P



Summary for Pond 30.1P: 30.1P

Inflow Area = 4.003 ac, 0.00% Impervious, Inflow Depth = 1.06" for 10-year event
Inflow = 3.40 cfs @ 12.27 hrs, Volume= 0.355 af
Outflow = 0.21 cfs @ 16.07 hrs, Volume= 0.167 af, Atten= 94%, Lag= 228.3 min
Discarded = 0.02 cfs @ 16.07 hrs, Volume= 0.046 af
Primary = 0.20 cfs @ 16.07 hrs, Volume= 0.121 af
Routed to Link SP30 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP30 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 461.21' @ 16.07 hrs Surf.Area= 5,285 sf Storage= 10,254 cf

Plug-Flow detention time= 591.6 min calculated for 0.167 af (47% of inflow)
Center-of-Mass det. time= 447.9 min (1,332.6 - 884.7)

Volume	Invert	Avail.Storage	Storage Description
#1	459.00'	20,702 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

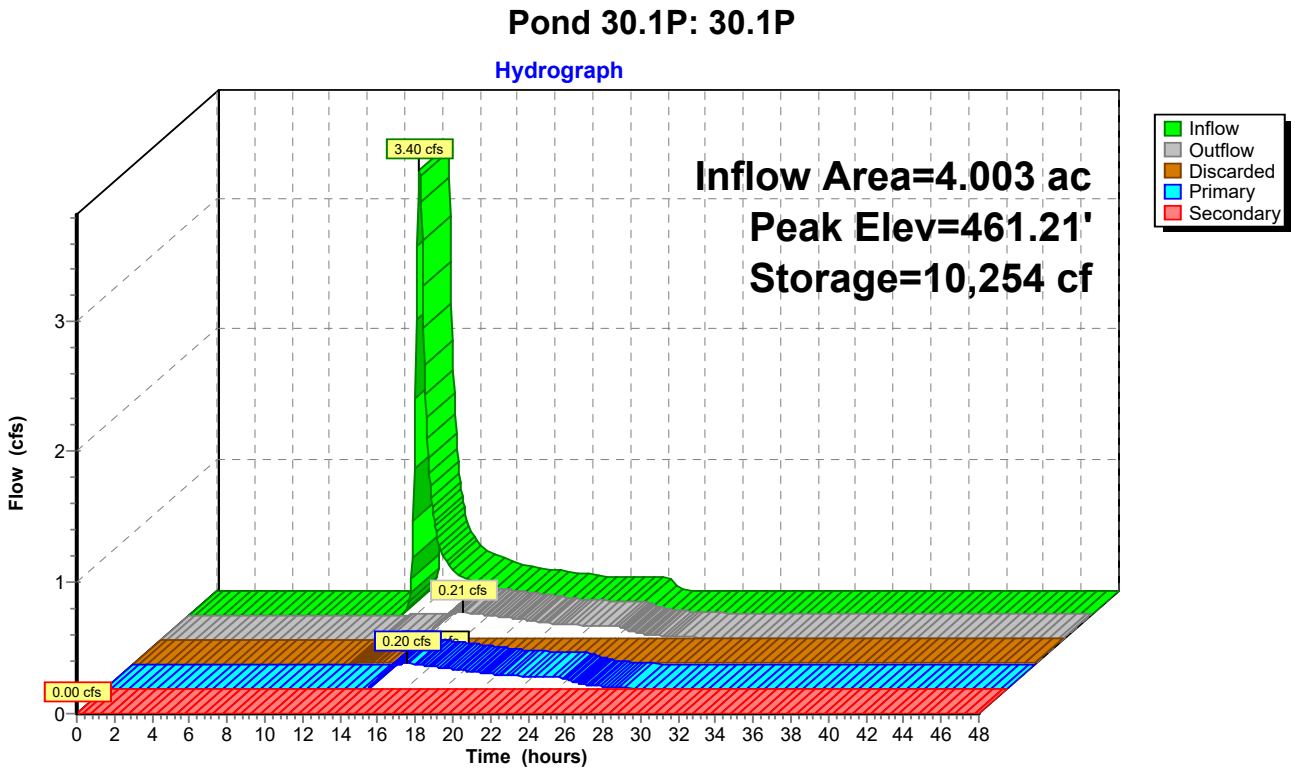
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
459.00	3,996	0	0
460.00	4,562	4,279	4,279
461.00	5,153	4,858	9,137
462.00	5,770	5,462	14,598
463.00	6,437	6,104	20,702

Device	Routing	Invert	Outlet Devices
#1	Primary	459.00'	**24.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 459.00' / 458.50' S= 0.0208 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	461.00'	**12.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	462.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	462.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#5	Discarded	459.00'	**0.129 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.02 cfs @ 16.07 hrs HW=461.21' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.19 cfs @ 16.07 hrs HW=461.21' (Free Discharge)
└**1=Culvert** (Passes 0.19 cfs of 13.16 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.19 cfs @ 1.58 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=459.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)



Summary for Pond 31.1P: 31.1P

Inflow Area = 0.925 ac, 0.00% Impervious, Inflow Depth = 1.01" for 10-year event
Inflow = 1.34 cfs @ 12.03 hrs, Volume= 0.078 af
Outflow = 0.02 cfs @ 24.09 hrs, Volume= 0.051 af, Atten= 99%, Lag= 723.8 min
Discarded = 0.02 cfs @ 24.09 hrs, Volume= 0.051 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 510.66' @ 24.09 hrs Surf.Area= 4,172 sf Storage= 2,621 cf

Plug-Flow detention time= 1,040.8 min calculated for 0.051 af (65% of inflow)
Center-of-Mass det. time= 916.4 min (1,786.4 - 870.0)

Volume	Invert	Avail.Storage	Storage Description
#1	510.00'	14,187 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
510.00	3,748	0	0
511.00	4,388	4,068	4,068
512.00	5,053	4,721	8,789
513.00	5,744	5,399	14,187

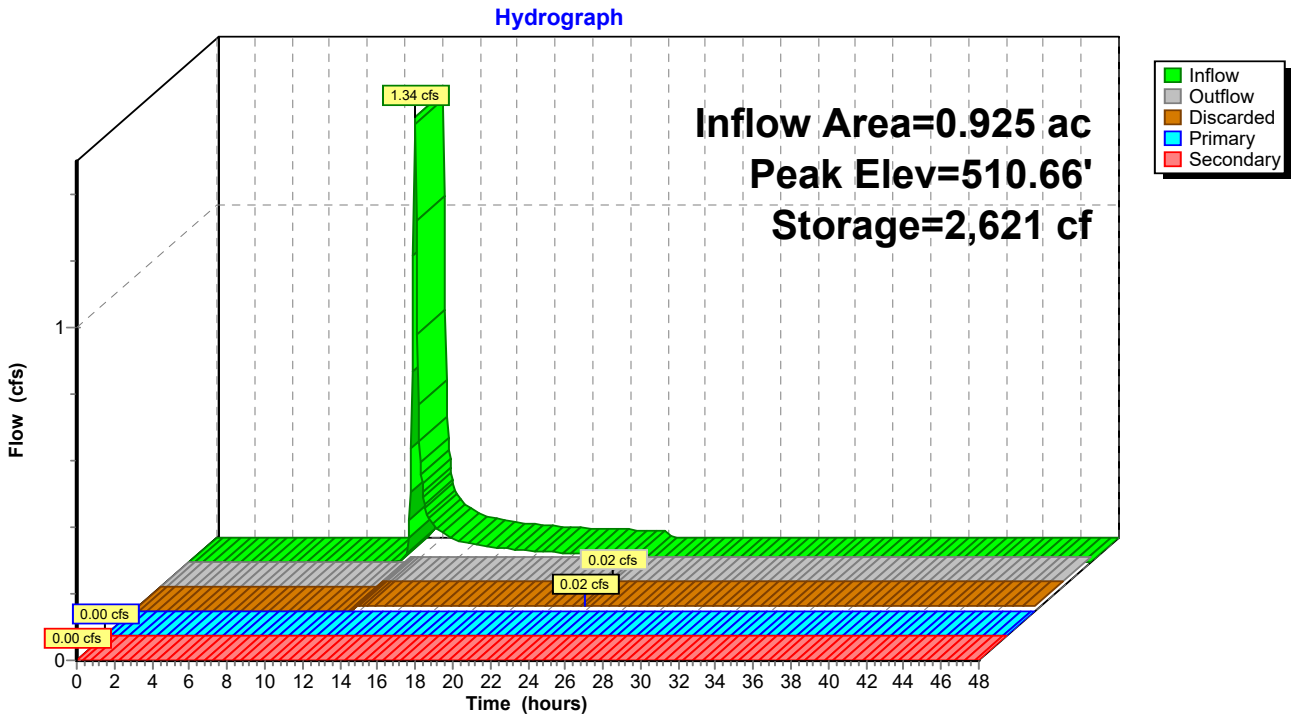
Device	Routing	Invert	Outlet Devices
#1	Primary	510.00'	**12.0" Round Culvert** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 510.00' / 509.50' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	512.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	512.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#4	Discarded	510.00'	**0.179 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.02 cfs @ 24.09 hrs HW=510.66' (Free Discharge)
↑—**4=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=510.00' (Free Discharge)
↑—**1=Culvert** (Controls 0.00 cfs)
↑—**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=510.00' (Free Discharge)
↑—**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 31.1P: 31.1P



Summary for Pond 32.1P: 32.1P

Inflow Area = 5.376 ac, 0.00% Impervious, Inflow Depth = 1.01" for 10-year event
Inflow = 5.54 cfs @ 12.15 hrs, Volume= 0.452 af
Outflow = 0.15 cfs @ 20.10 hrs, Volume= 0.173 af, Atten= 97%, Lag= 477.3 min
Primary = 0.15 cfs @ 20.10 hrs, Volume= 0.173 af
Routed to Link SP34 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 553.30' @ 20.10 hrs Surf.Area= 12,428 sf Storage= 15,199 cf

Plug-Flow detention time= 708.1 min calculated for 0.173 af (38% of inflow)
Center-of-Mass det. time= 559.7 min (1,438.7 - 879.0)

Volume	Invert	Avail.Storage	Storage Description
#1	552.00'	52,989 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

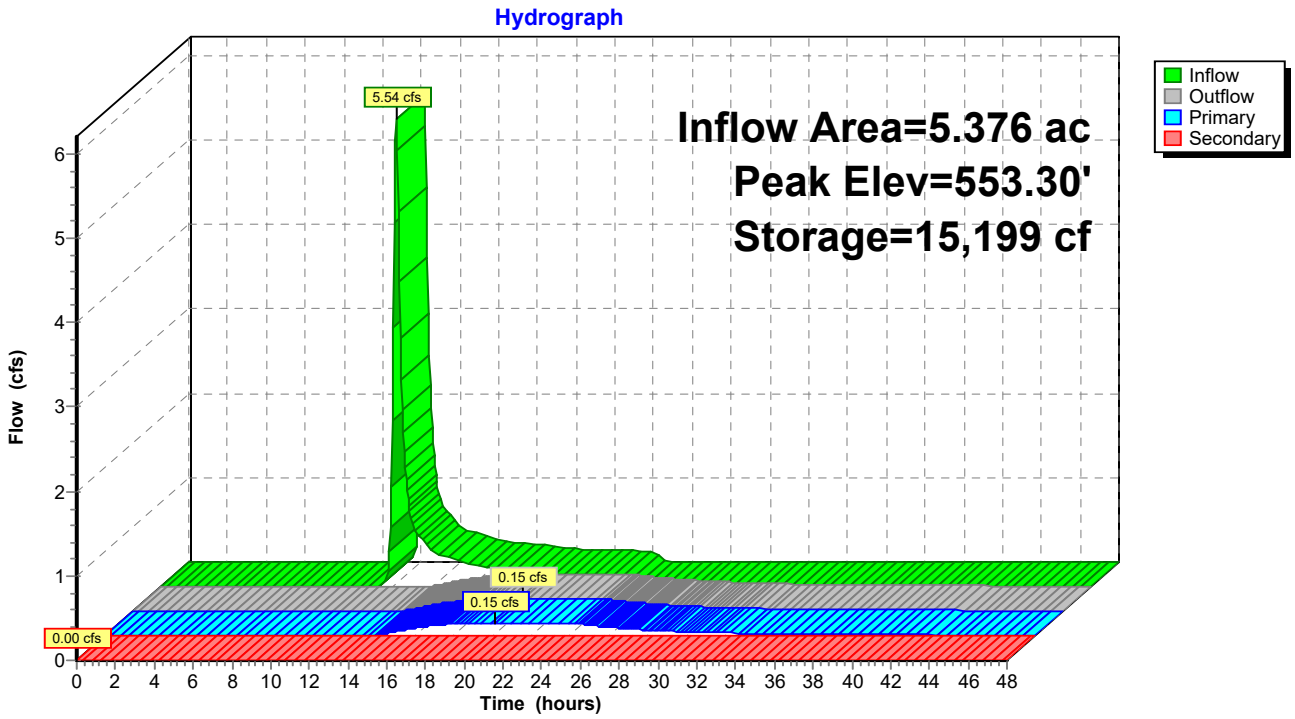
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
552.00	10,968	0	0
553.00	12,086	11,527	11,527
554.00	13,228	12,657	24,184
555.00	14,396	13,812	37,996
556.00	15,589	14,993	52,989

Device	Routing	Invert	Outlet Devices
#1	Primary	552.00'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 552.00' / 551.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	553.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	555.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	555.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.15 cfs @ 20.10 hrs HW=553.30' (Free Discharge)
└**1=Culvert** (Passes 0.15 cfs of 2.67 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.15 cfs @ 1.86 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=552.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 32.1P: 32.1P



Summary for Pond 33.1P: 33.1P

Inflow Area = 12.768 ac, 1.41% Impervious, Inflow Depth = 1.18" for 10-year event
Inflow = 10.75 cfs @ 12.34 hrs, Volume= 1.255 af
Outflow = 0.35 cfs @ 23.37 hrs, Volume= 0.758 af, Atten= 97%, Lag= 661.7 min
Primary = 0.35 cfs @ 23.37 hrs, Volume= 0.758 af
Routed to Link SP34 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 591.35' @ 23.37 hrs Surf.Area= 31,400 sf Storage= 40,913 cf

Plug-Flow detention time= 913.4 min calculated for 0.758 af (60% of inflow)
Center-of-Mass det. time= 785.5 min (1,669.8 - 884.3)

Volume	Invert	Avail.Storage	Storage Description
#1	590.00'	130,285 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

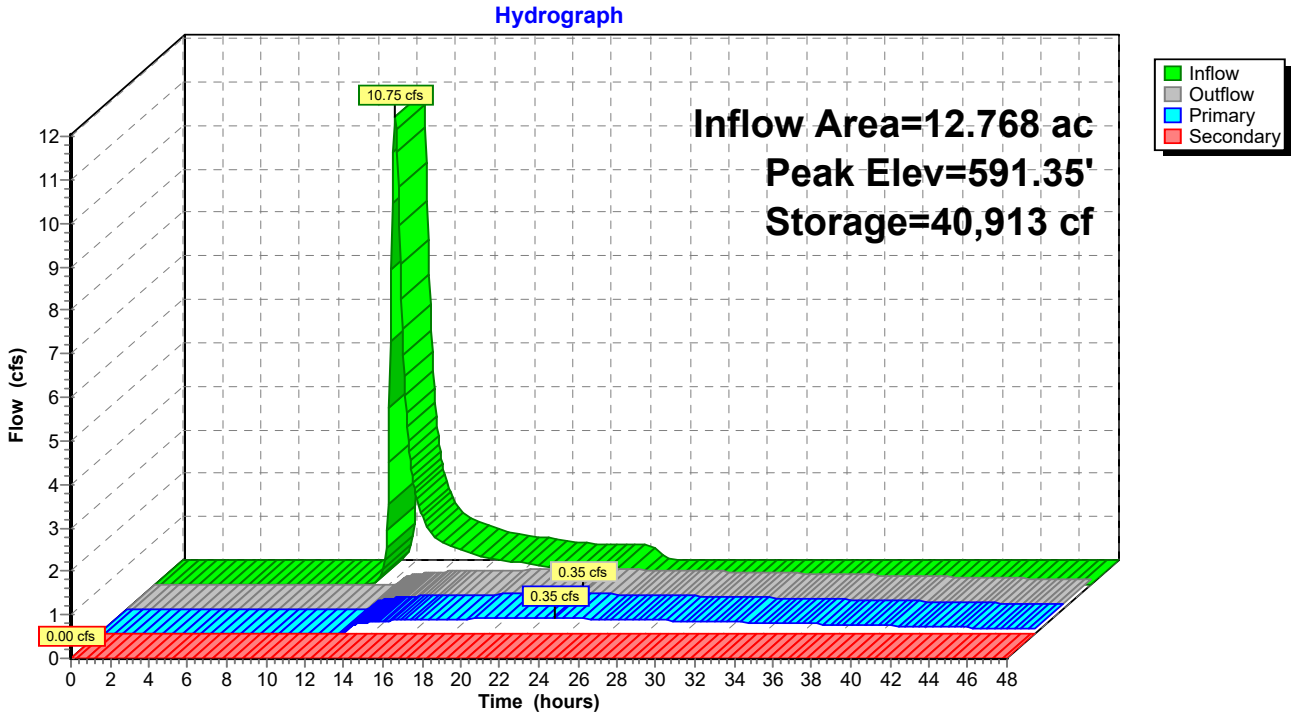
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
590.00	29,006	0	0
591.00	30,767	29,887	29,887
592.00	32,552	31,660	61,546
593.00	34,363	33,458	95,004
594.00	36,199	35,281	130,285

Device	Routing	Invert	Outlet Devices
#1	Primary	590.00'	**12.0" Round Culvert** L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 590.00' / 589.75' S= 0.0083 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	590.50'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	593.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	593.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.35 cfs @ 23.37 hrs HW=591.35' (Free Discharge)
└**1=Culvert** (Passes 0.35 cfs of 2.76 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.35 cfs @ 3.99 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=590.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 33.1P: 33.1P



Summary for Pond 34P: VAN EPPS RD CULVERT

Inflow Area = 25.795 ac, 1.16% Impervious, Inflow Depth = 0.62" for 10-year event
Inflow = 11.86 cfs @ 12.22 hrs, Volume= 1.323 af
Outflow = 7.80 cfs @ 12.42 hrs, Volume= 1.323 af, Atten= 34%, Lag= 11.7 min
Primary = 7.80 cfs @ 12.42 hrs, Volume= 1.323 af
Routed to Reach 33R :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach 33R :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 583.42' @ 12.42 hrs Surf.Area= 4,616 sf Storage= 4,265 cf

Plug-Flow detention time= 2.5 min calculated for 1.322 af (100% of inflow)
Center-of-Mass det. time= 2.5 min (916.4 - 913.9)

Volume	Invert	Avail.Storage	Storage Description
#1	580.00'	32,769 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

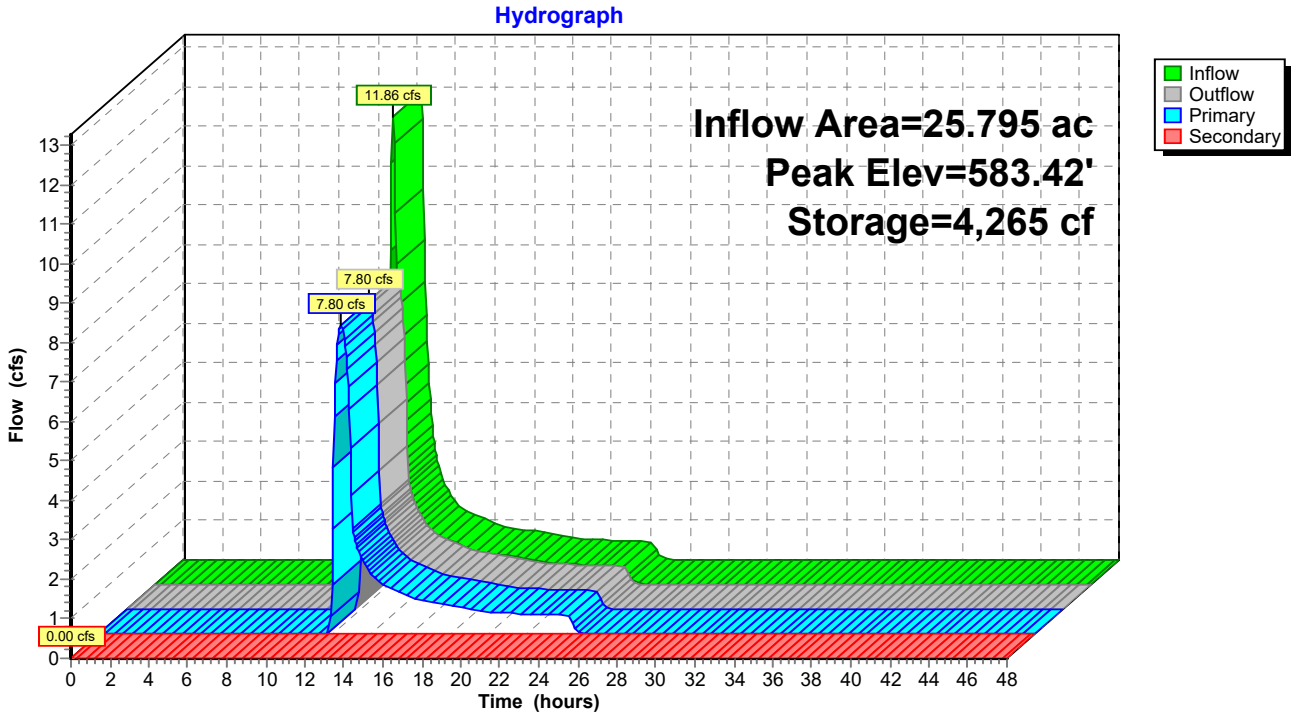
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
580.00	1	5.0	0	0	1
582.00	935	220.0	644	644	3,857
584.00	6,900	505.0	6,917	7,561	20,316
585.00	12,860	515.0	9,727	17,288	21,274
586.00	18,260	645.0	15,481	32,769	33,289

Device	Routing	Invert	Outlet Devices
#1	Primary	580.00'	**15.0" Round Culvert** L= 79.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 580.00' / 578.00' S= 0.0253 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Secondary	585.00'	**15.0' long + 3.0 '/' SideZ x 25.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=7.80 cfs @ 12.42 hrs HW=583.42' (Free Discharge)
1=Culvert (Inlet Controls 7.80 cfs @ 6.35 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=580.00' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 34P: VAN EPPS RD CULVERT



Summary for Pond 42P: 42P

Inflow Area = 4.857 ac, 0.00% Impervious, Inflow Depth = 0.92" for 10-year event
Inflow = 7.51 cfs @ 11.98 hrs, Volume= 0.372 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP42 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP42 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 459.42' @ 24.40 hrs Surf.Area= 12,277 sf Storage= 16,219 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	458.00'	37,253 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

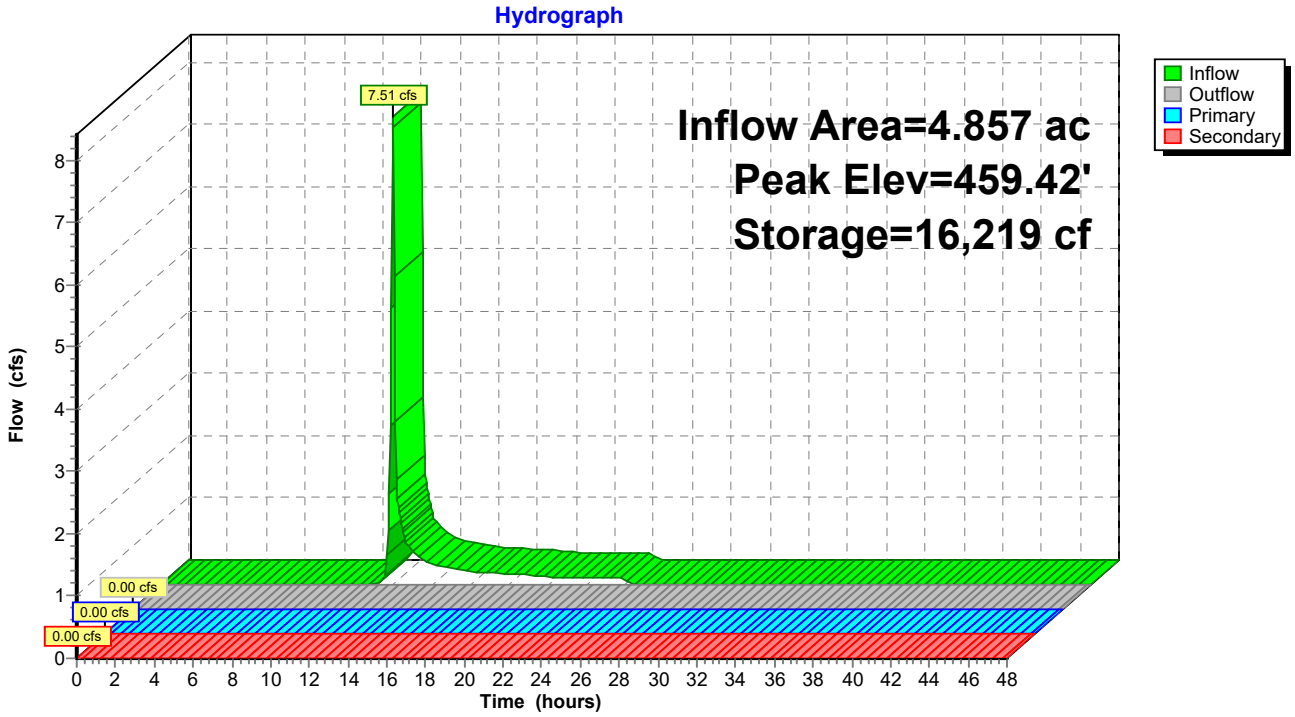
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
458.00	10,519	610.0	0	0	10,519
459.00	11,752	622.6	11,130	11,130	11,900
460.00	13,010	635.2	12,376	23,505	13,309
461.00	14,498	714.6	13,747	37,253	21,865

Device	Routing	Invert	Outlet Devices
#1	Primary	458.00'	**12.0" Round Culvert** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 458.00' / 456.75' S= 0.0391 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	459.78'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	460.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	460.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 42P: 42P


Hydrograph
Inflow Area=4.857 ac
Peak Elev=459.42'
Storage=16,219 cf
7.51 cfs
0.00 cfs
0.00 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
0 1 2 3 4 5 6 7 8

Summary for Pond 49.1P: 49.1P

Inflow Area = 4.740 ac, 6.79% Impervious, Inflow Depth = 0.75" for 10-year event
Inflow = 4.84 cfs @ 12.04 hrs, Volume= 0.297 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP42 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP42 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 533.82' @ 24.60 hrs Surf.Area= 7,915 sf Storage= 12,939 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	532.00'	32,642 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

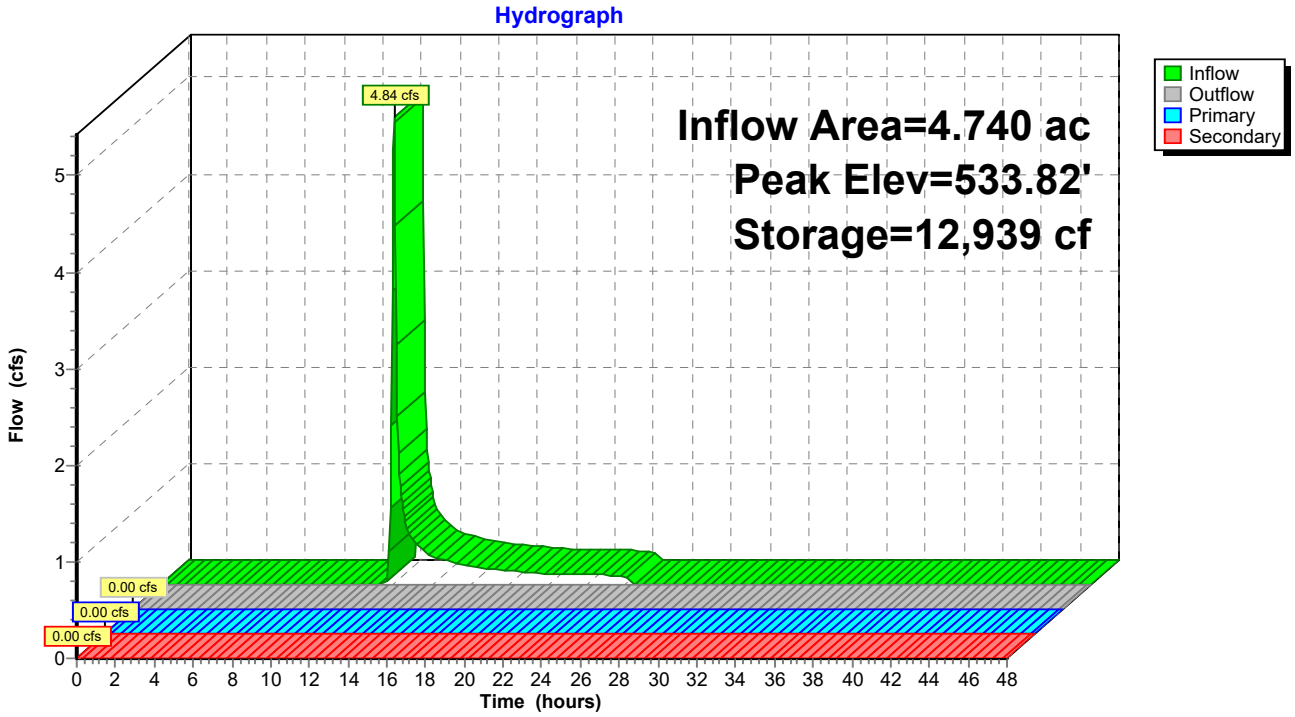
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
532.00	6,368	0	0
533.00	7,185	6,777	6,777
534.00	8,079	7,632	14,409
535.00	9,092	8,586	22,994
536.00	10,204	9,648	32,642

Device	Routing	Invert	Outlet Devices
#1	Primary	532.00'	**24.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 532.00' / 531.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	535.83'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	535.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	535.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=532.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=532.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 49.1P: 49.1P



Summary for Pond 49.2P: 49.2S

Inflow Area = 3.533 ac, 0.14% Impervious, Inflow Depth = 1.01" for 10-year event
Inflow = 6.07 cfs @ 11.98 hrs, Volume= 0.297 af
Outflow = 0.43 cfs @ 12.95 hrs, Volume= 0.221 af, Atten= 93%, Lag= 57.9 min
Primary = 0.43 cfs @ 12.95 hrs, Volume= 0.221 af
Routed to Link SP42 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP42 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 523.13' @ 12.95 hrs Surf.Area= 5,623 sf Storage= 5,720 cf

Plug-Flow detention time= 286.9 min calculated for 0.221 af (75% of inflow)
Center-of-Mass det. time= 183.0 min (1,049.0 - 866.0)

Volume	Invert	Avail.Storage	Storage Description
#1	522.00'	11,001 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

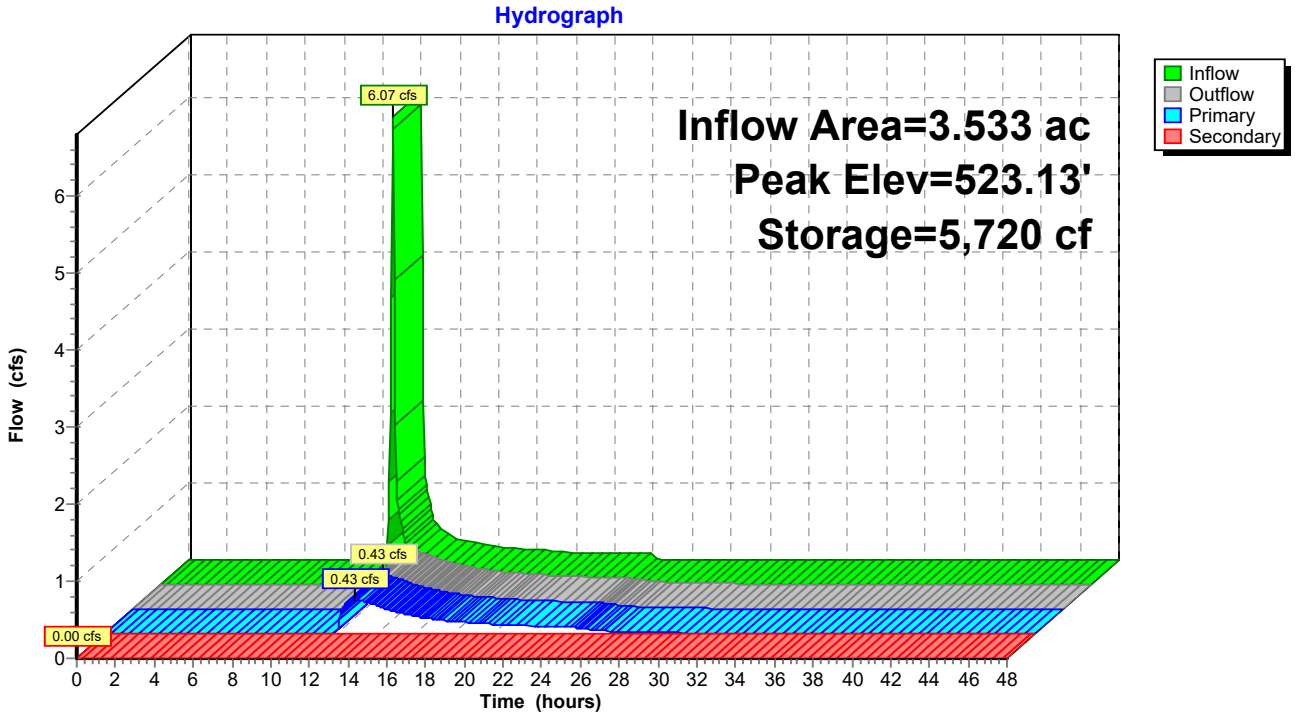
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
522.00	4,515	0	0
523.00	5,494	5,005	5,005
524.00	6,498	5,996	11,001

Device	Routing	Invert	Outlet Devices
#1	Primary	522.00'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 522.00' / 521.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	522.67'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	523.50'	**48.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	523.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.44 cfs @ 12.95 hrs HW=523.13' (Free Discharge)
└**1=Culvert** (Passes 0.44 cfs of 2.37 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.44 cfs @ 2.31 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=522.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 49.2P: 49.2S



Summary for Pond 51.1P: 51.1P

Inflow Area = 8.131 ac, 0.00% Impervious, Inflow Depth = 1.18" for 10-year event
Inflow = 8.53 cfs @ 12.22 hrs, Volume= 0.799 af
Outflow = 0.23 cfs @ 22.45 hrs, Volume= 0.179 af, Atten= 97%, Lag= 614.0 min
Primary = 0.23 cfs @ 22.45 hrs, Volume= 0.179 af
Routed to Link SP51 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP51 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 605.30' @ 22.45 hrs Surf.Area= 10,574 sf Storage= 29,832 cf

Plug-Flow detention time= 719.9 min calculated for 0.179 af (22% of inflow)
Center-of-Mass det. time= 569.4 min (1,444.5 - 875.2)

Volume	Invert	Avail.Storage	Storage Description
#1	602.00'	49,222 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

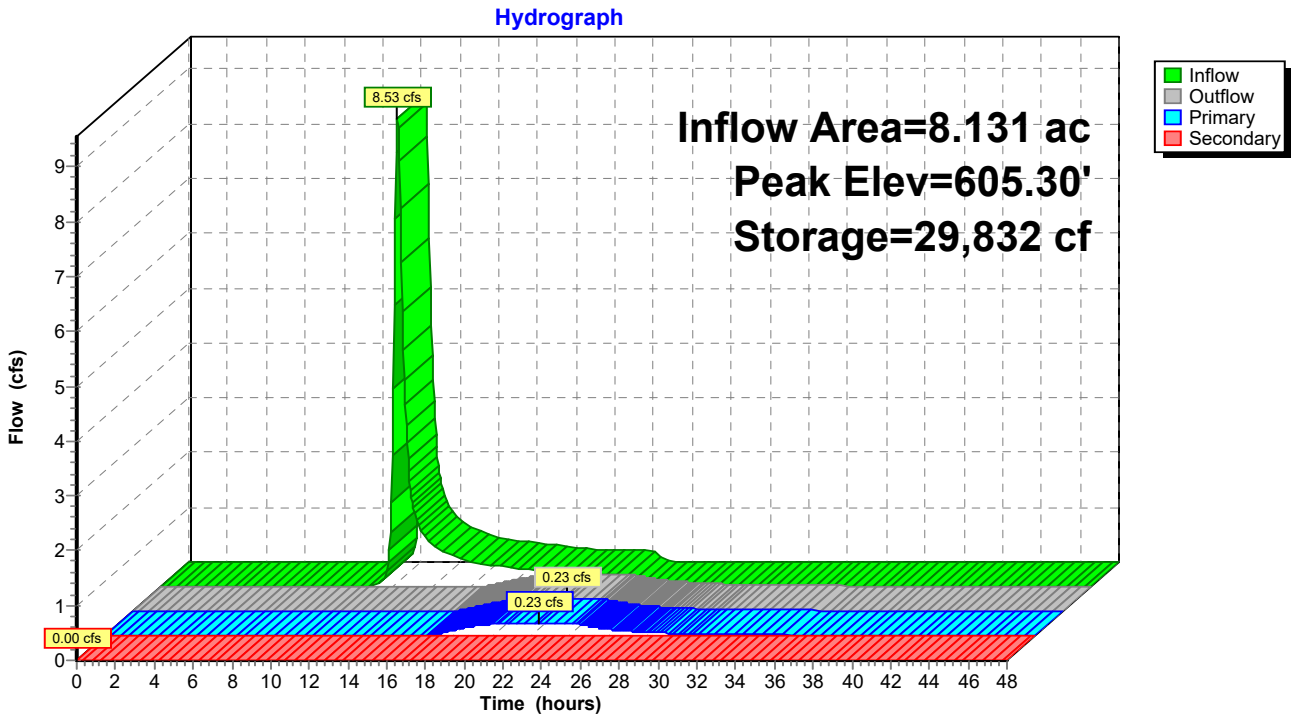
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
602.00	7,555	0	0
603.00	8,441	7,998	7,998
604.00	9,351	8,896	16,894
605.00	10,287	9,819	26,713
606.00	11,248	10,768	37,481
607.00	12,234	11,741	49,222

Device	Routing	Invert	Outlet Devices
#1	Primary	600.00'	**12.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 600.00' / 598.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	605.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	606.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	606.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.23 cfs @ 22.45 hrs HW=605.30' (Free Discharge)
└**1=Culvert** (Passes 0.23 cfs of 6.54 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.23 cfs @ 1.86 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=602.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 51.1P: 51.1P



Summary for Pond 52.1P: 52.1P

Inflow Area = 0.805 ac, 0.00% Impervious, Inflow Depth = 1.06" for 10-year event
Inflow = 1.76 cfs @ 11.90 hrs, Volume= 0.071 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP52 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP52 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 648.77' @ 24.05 hrs Surf.Area= 4,324 sf Storage= 3,108 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	648.00'	14,790 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

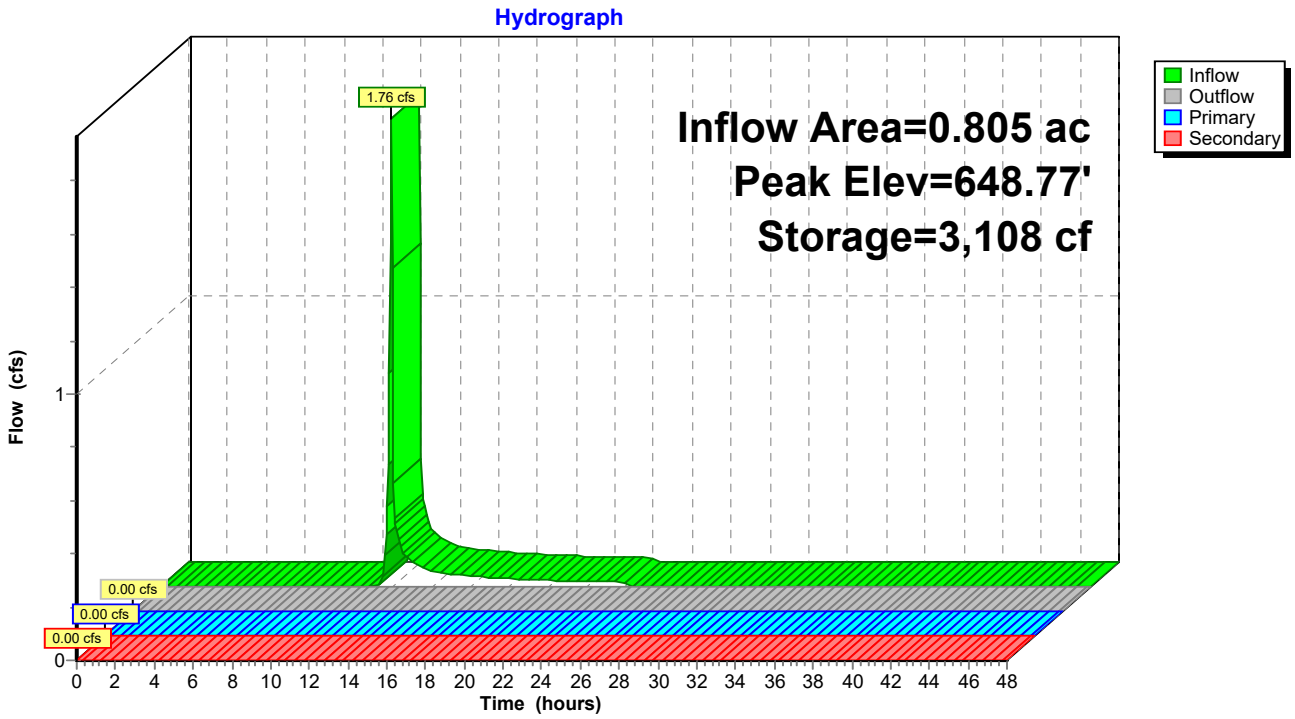
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
648.00	3,699	0	0
649.00	4,506	4,103	4,103
650.00	5,337	4,922	9,024
651.00	6,194	5,766	14,790

Device	Routing	Invert	Outlet Devices
#1	Primary	648.00'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 648.00' / 647.50' S= 0.0250 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	649.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	650.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	650.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=648.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=648.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 52.1P: 52.1P



Summary for Pond 56.1P: 56.1P

Inflow Area = 27.373 ac, 0.00% Impervious, Inflow Depth = 1.01" for 10-year event
Inflow = 25.68 cfs @ 12.18 hrs, Volume= 2.300 af
Outflow = 1.30 cfs @ 16.26 hrs, Volume= 1.892 af, Atten= 95%, Lag= 244.7 min
Primary = 1.30 cfs @ 16.26 hrs, Volume= 1.892 af
Routed to Link SP56 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP56 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 417.13' @ 16.26 hrs Surf.Area= 21,621 sf Storage= 57,652 cf

Plug-Flow detention time= 543.0 min calculated for 1.892 af (82% of inflow)
Center-of-Mass det. time= 462.2 min (1,344.1 - 881.9)

Volume	Invert	Avail.Storage	Storage Description
#1	414.00'	128,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

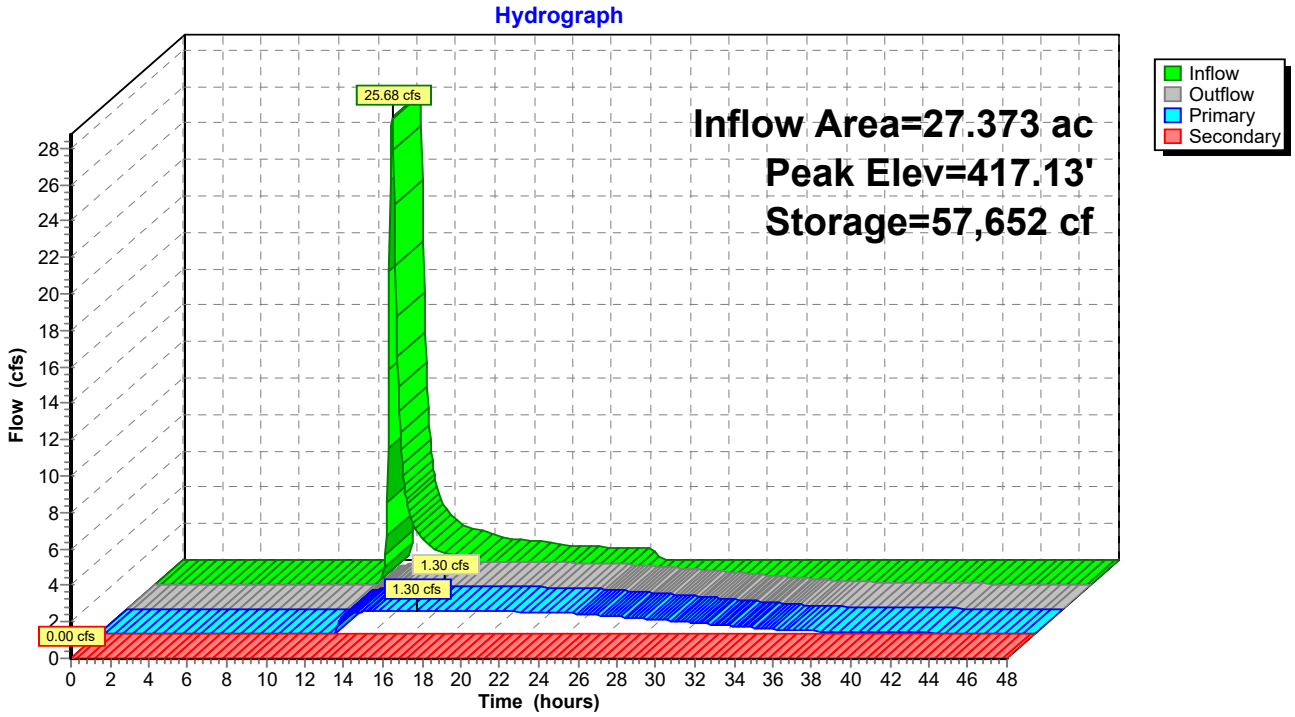
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
414.00	15,198	0	0
415.00	17,220	16,209	16,209
416.00	19,266	18,243	34,452
417.00	21,338	20,302	54,754
418.00	23,435	22,387	77,141
419.00	25,558	24,497	101,637
420.00	27,705	26,632	128,269

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	**12.0" Round Culvert X 2.00** L= 70.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 414.00' / 413.50' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	415.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	419.50'	**48.0" Horiz. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Secondary	419.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=1.30 cfs @ 16.26 hrs HW=417.13' (Free Discharge)
└**1=Culvert** (Passes 1.30 cfs of 9.69 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 1.30 cfs @ 6.61 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=414.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 56.1P: 56.1P

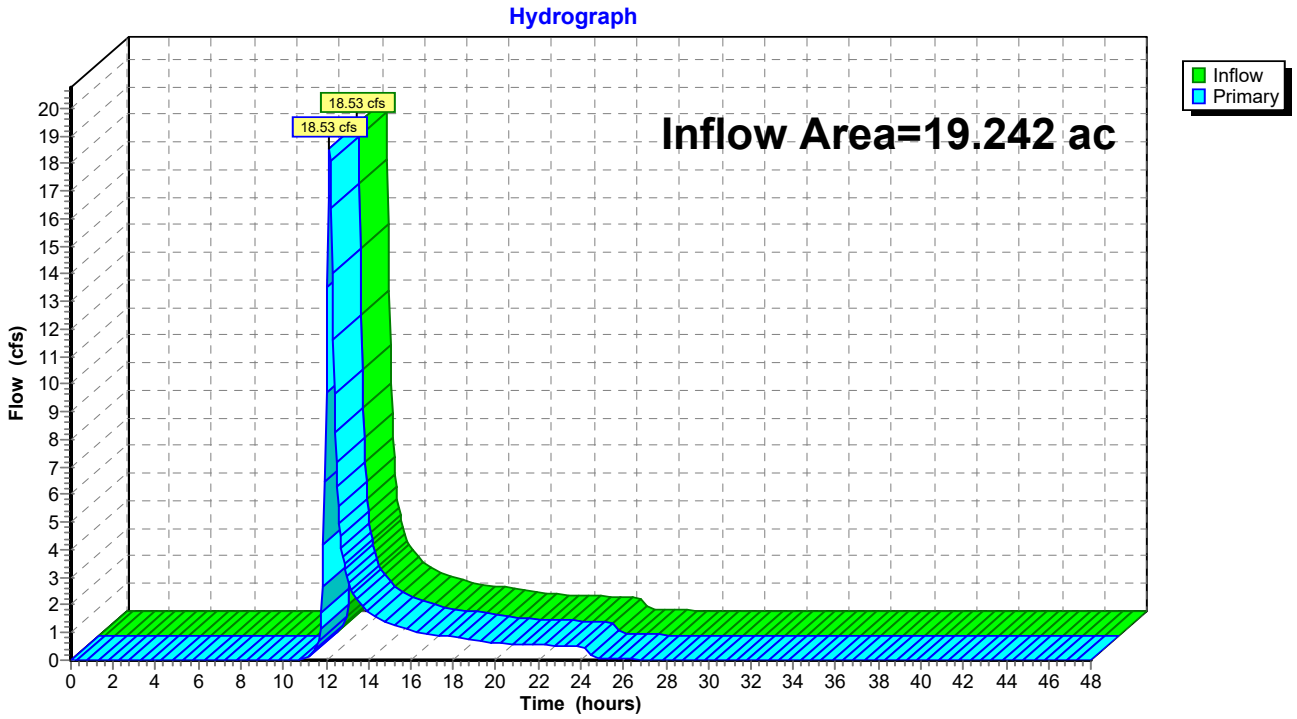


Summary for Link SP25:

Inflow Area = 19.242 ac, 0.51% Impervious, Inflow Depth = 1.09" for 10-year event
Inflow = 18.53 cfs @ 12.17 hrs, Volume= 1.753 af
Primary = 18.53 cfs @ 12.17 hrs, Volume= 1.753 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP25:

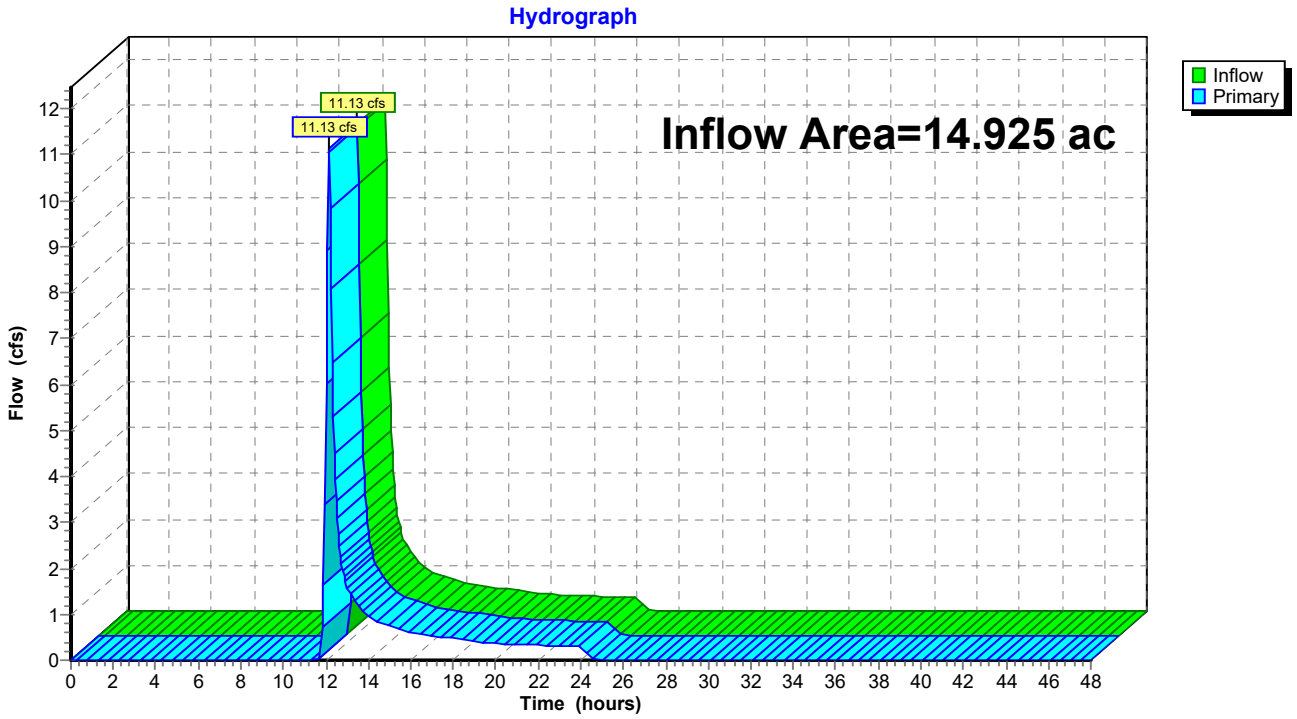


Summary for Link SP26:

Inflow Area = 14.925 ac, 5.39% Impervious, Inflow Depth = 0.75" for 10-year event
Inflow = 11.13 cfs @ 12.13 hrs, Volume= 0.935 af
Primary = 11.13 cfs @ 12.13 hrs, Volume= 0.935 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP26:

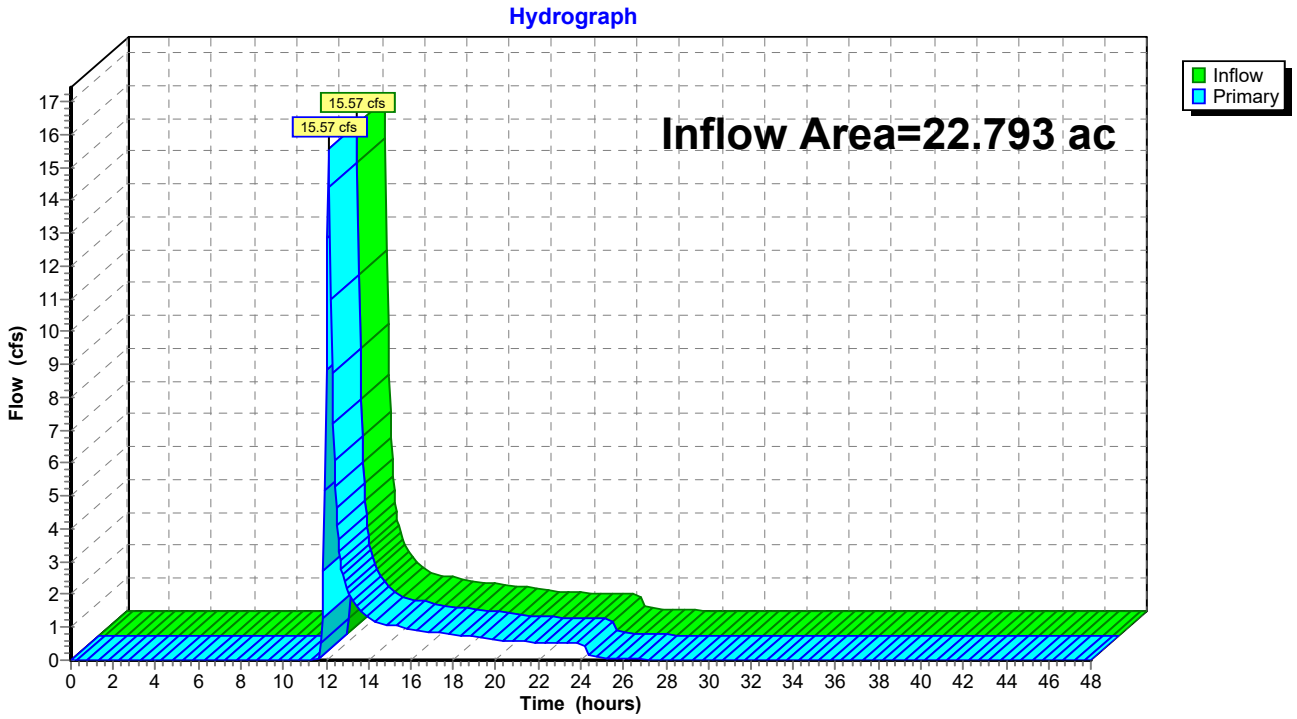


Summary for Link SP27:

Inflow Area = 22.793 ac, 1.95% Impervious, Inflow Depth = 0.73" for 10-year event
Inflow = 15.57 cfs @ 12.13 hrs, Volume= 1.389 af
Primary = 15.57 cfs @ 12.13 hrs, Volume= 1.389 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP27:

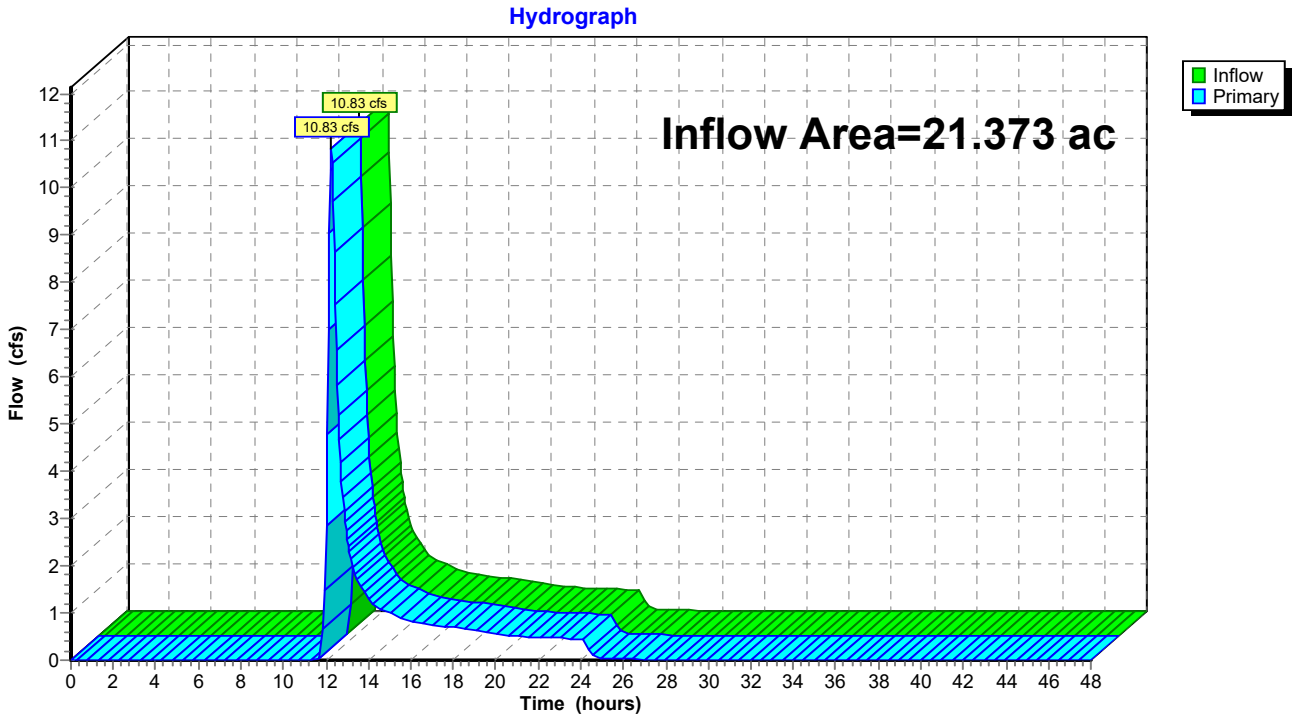


Summary for Link SP28:

Inflow Area = 21.373 ac, 0.53% Impervious, Inflow Depth = 0.71" for 10-year event
Inflow = 10.83 cfs @ 12.25 hrs, Volume= 1.259 af
Primary = 10.83 cfs @ 12.25 hrs, Volume= 1.259 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP28:

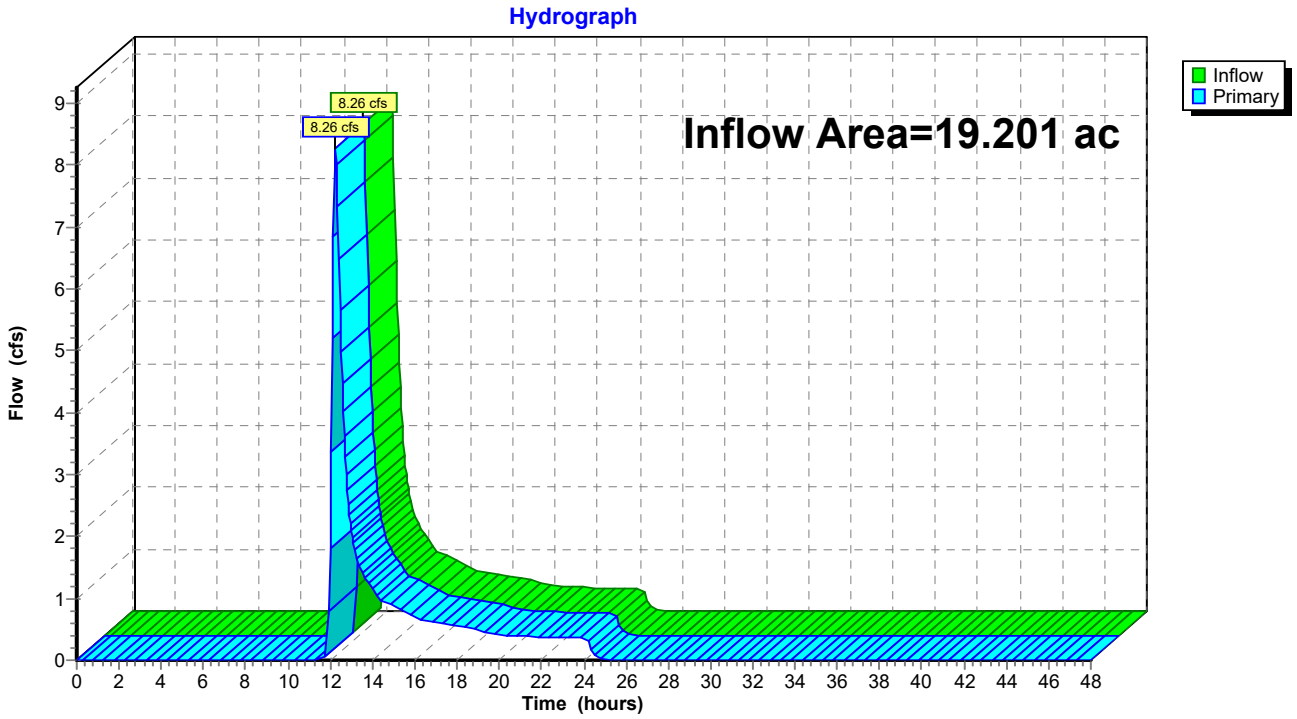


Summary for Link SP29:

Inflow Area = 19.201 ac, 1.25% Impervious, Inflow Depth = 0.62" for 10-year event
Inflow = 8.26 cfs @ 12.25 hrs, Volume= 0.985 af
Primary = 8.26 cfs @ 12.25 hrs, Volume= 0.985 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP29:

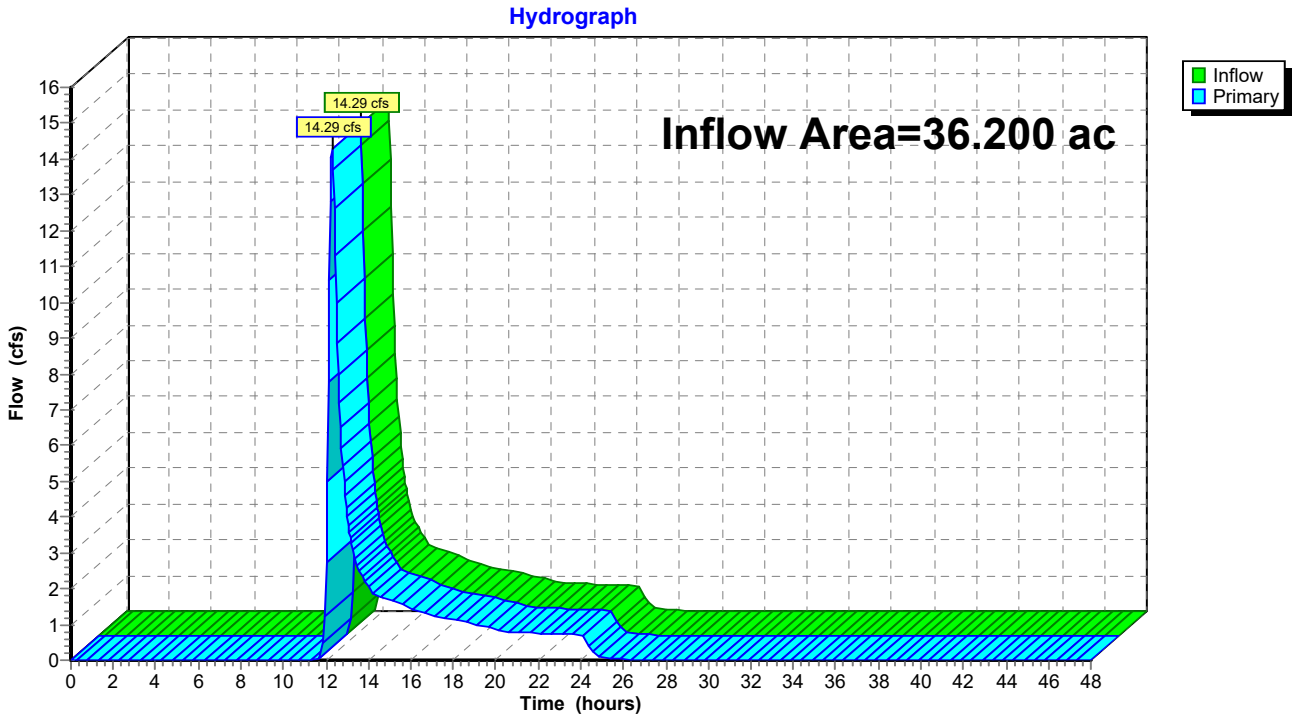


Summary for Link SP30:

Inflow Area = 36.200 ac, 1.23% Impervious, Inflow Depth = 0.63" for 10-year event
Inflow = 14.29 cfs @ 12.29 hrs, Volume= 1.891 af
Primary = 14.29 cfs @ 12.29 hrs, Volume= 1.891 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP30:

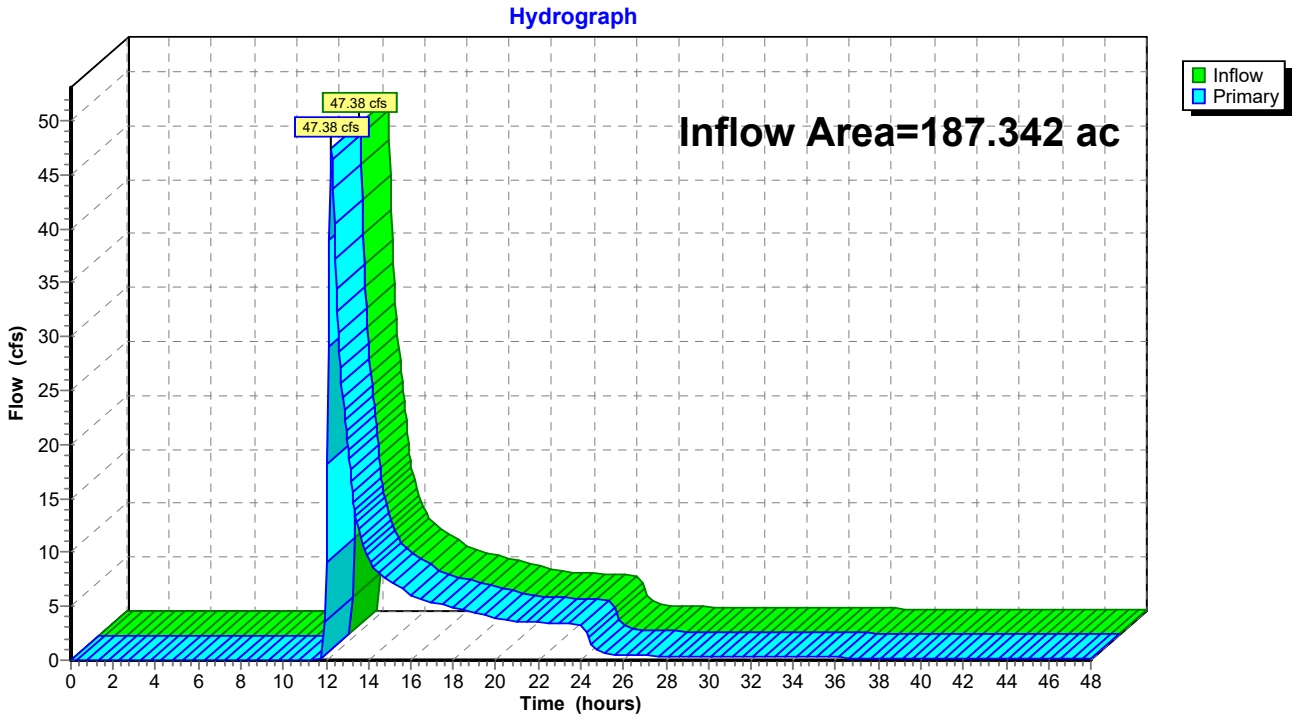


Summary for Link SP34:

Inflow Area = 187.342 ac, 1.98% Impervious, Inflow Depth > 0.54" for 10-year event
Inflow = 47.38 cfs @ 12.26 hrs, Volume= 8.401 af
Primary = 47.38 cfs @ 12.26 hrs, Volume= 8.401 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP34:

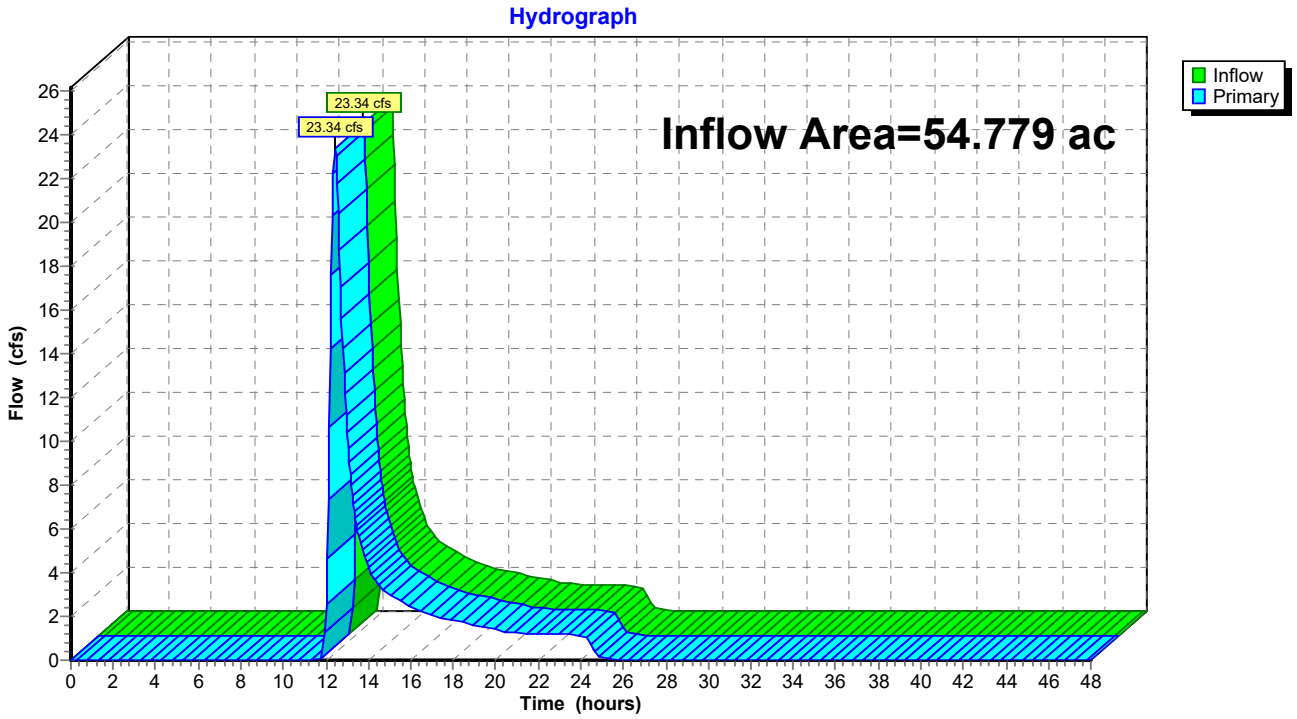


Summary for Link SP35:

Inflow Area = 54.779 ac, 2.01% Impervious, Inflow Depth = 0.75" for 10-year event
Inflow = 23.34 cfs @ 12.44 hrs, Volume= 3.433 af
Primary = 23.34 cfs @ 12.44 hrs, Volume= 3.433 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP35:

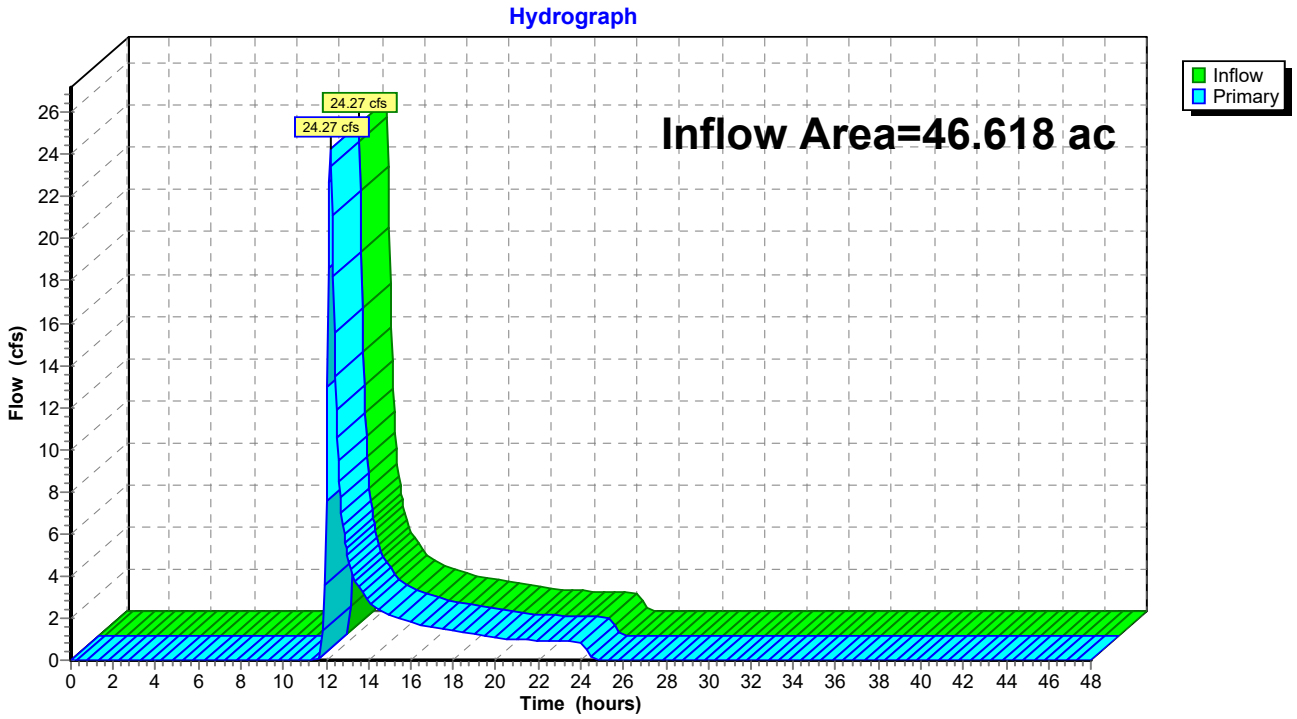


Summary for Link SP36:

Inflow Area = 46.618 ac, 0.00% Impervious, Inflow Depth = 0.66" for 10-year event
Inflow = 24.27 cfs @ 12.21 hrs, Volume= 2.562 af
Primary = 24.27 cfs @ 12.21 hrs, Volume= 2.562 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP36:

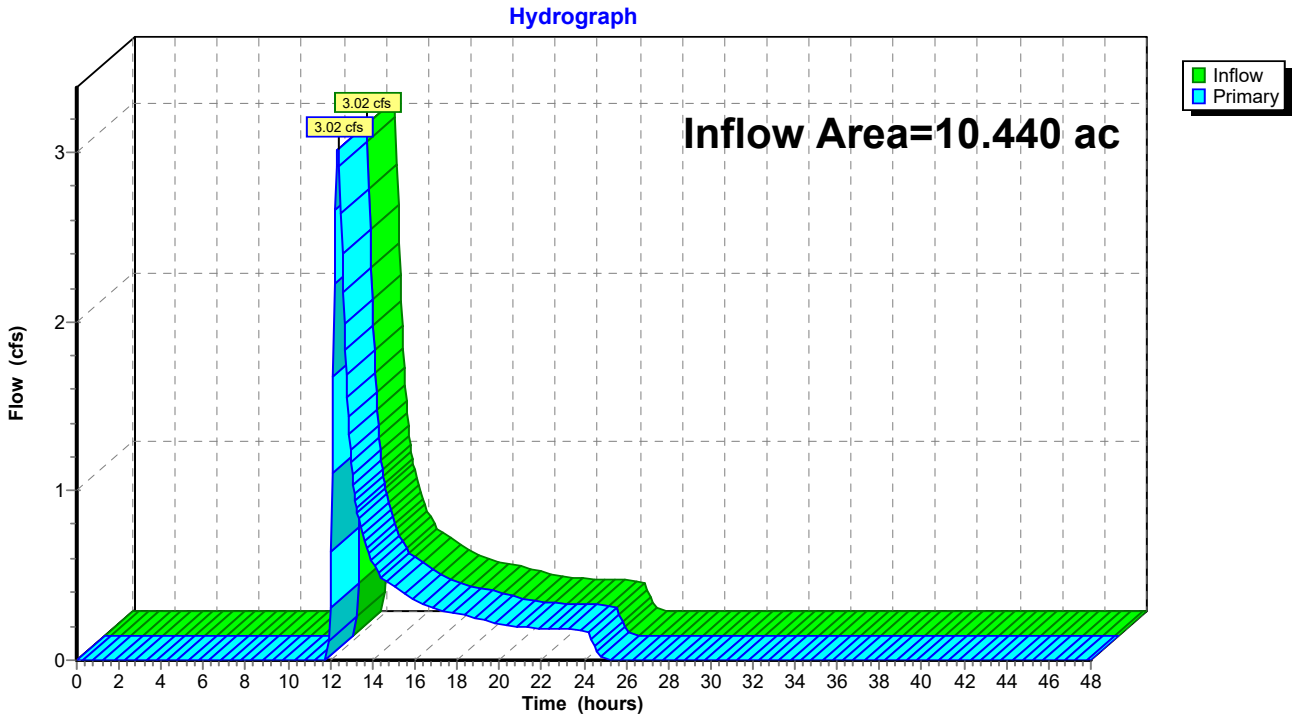


Summary for Link SP37:

Inflow Area = 10.440 ac, 5.80% Impervious, Inflow Depth = 0.53" for 10-year event
Inflow = 3.02 cfs @ 12.36 hrs, Volume= 0.462 af
Primary = 3.02 cfs @ 12.36 hrs, Volume= 0.462 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP37:

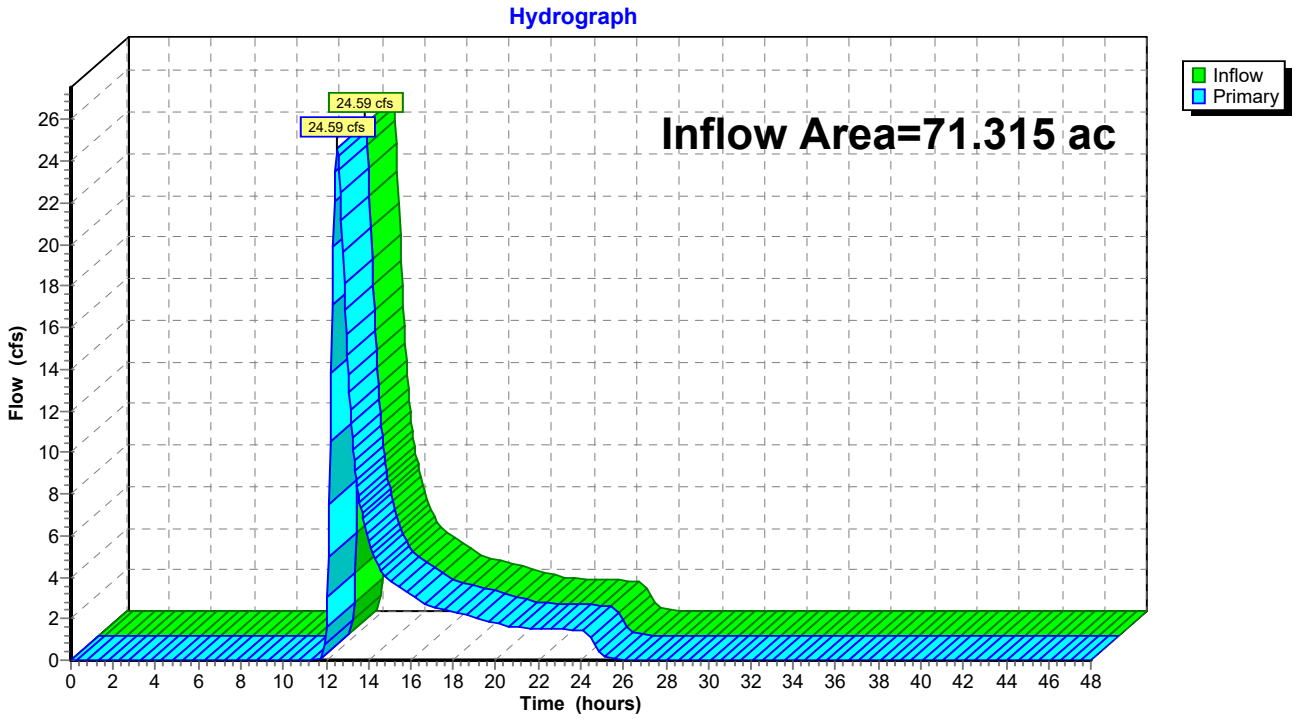


Summary for Link SP38:

Inflow Area = 71.315 ac, 1.11% Impervious, Inflow Depth = 0.71" for 10-year event
Inflow = 24.59 cfs @ 12.55 hrs, Volume= 4.190 af
Primary = 24.59 cfs @ 12.55 hrs, Volume= 4.190 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP38:

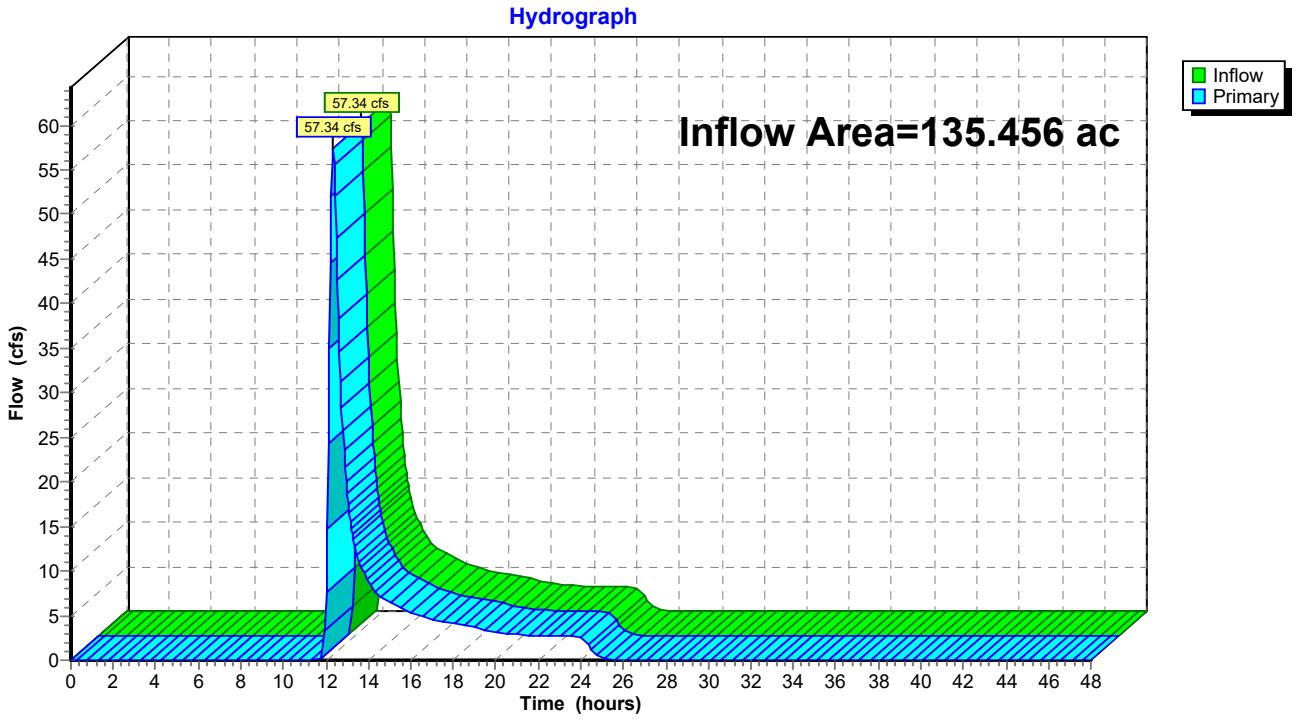


Summary for Link SP39:

Inflow Area = 135.456 ac, 1.64% Impervious, Inflow Depth = 0.67" for 10-year event
Inflow = 57.34 cfs @ 12.34 hrs, Volume= 7.536 af
Primary = 57.34 cfs @ 12.34 hrs, Volume= 7.536 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP39:

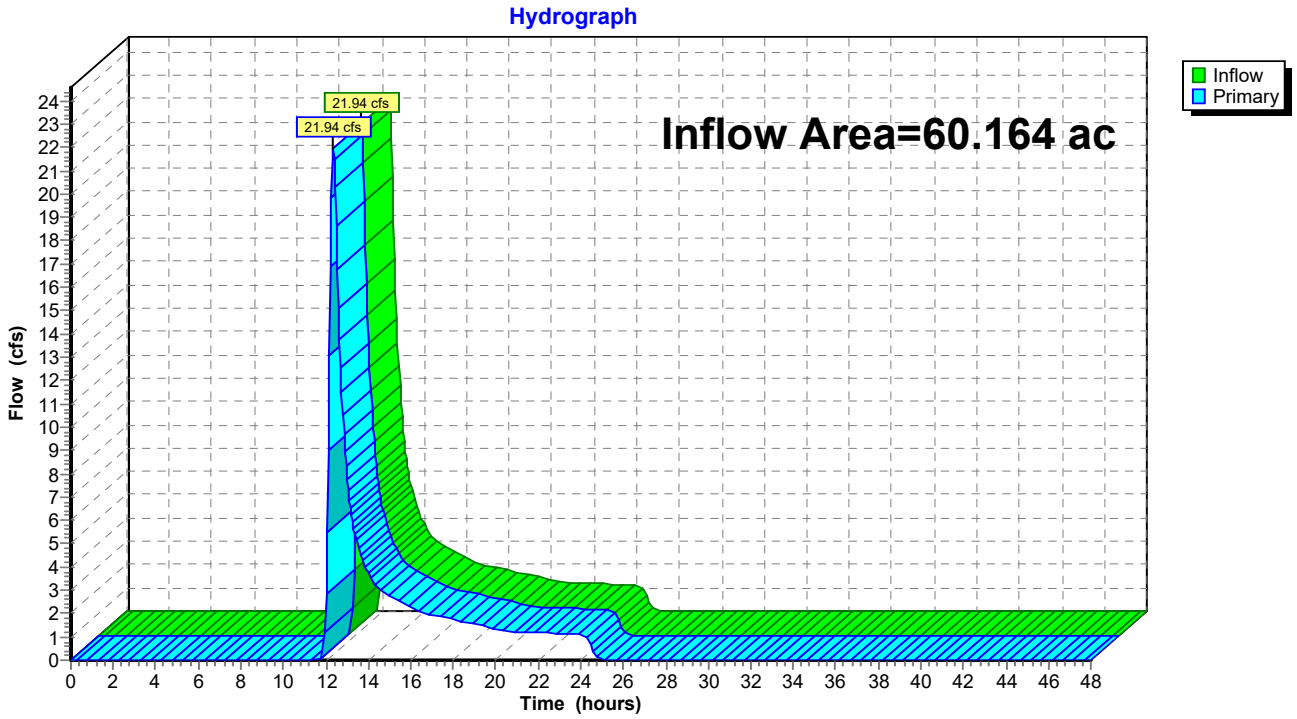


Summary for Link SP41:

Inflow Area = 60.164 ac, 0.00% Impervious, Inflow Depth = 0.62" for 10-year event
Inflow = 21.94 cfs @ 12.35 hrs, Volume= 3.086 af
Primary = 21.94 cfs @ 12.35 hrs, Volume= 3.086 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP41:

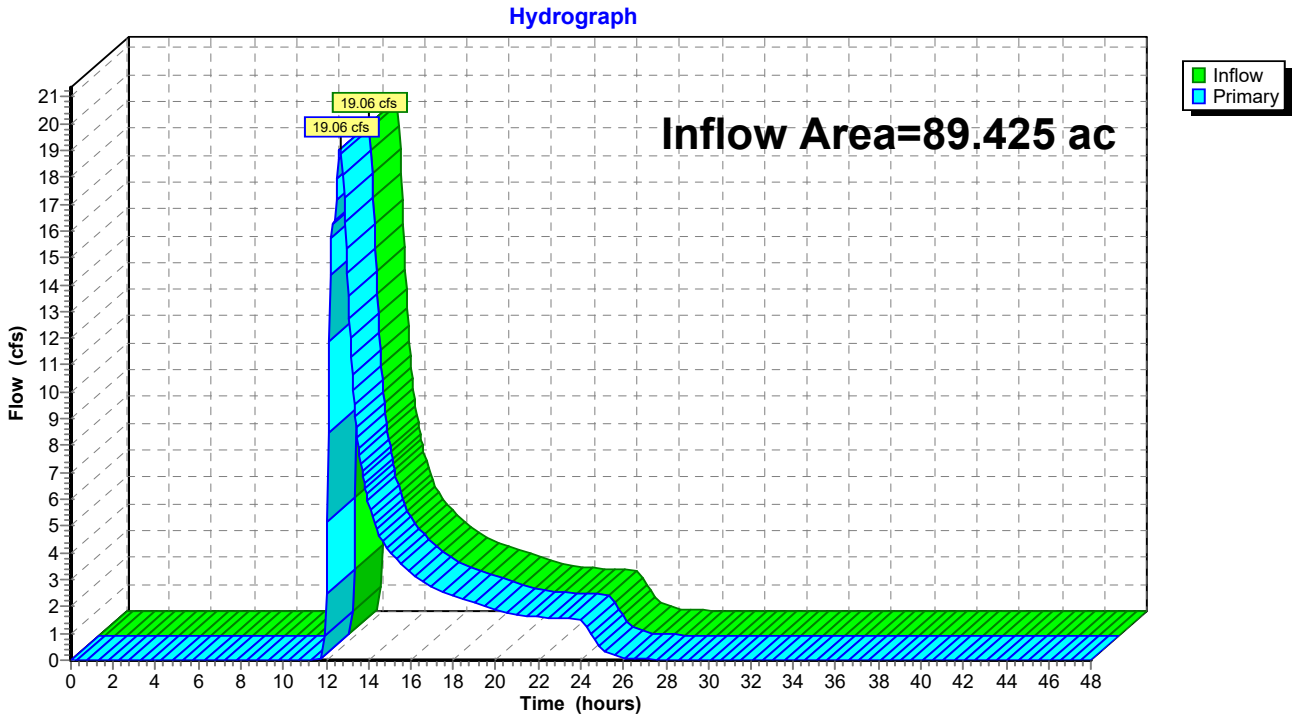


Summary for Link SP42:

Inflow Area = 89.425 ac, 0.58% Impervious, Inflow Depth = 0.56" for 10-year event
Inflow = 19.06 cfs @ 12.68 hrs, Volume= 4.175 af
Primary = 19.06 cfs @ 12.68 hrs, Volume= 4.175 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP42:

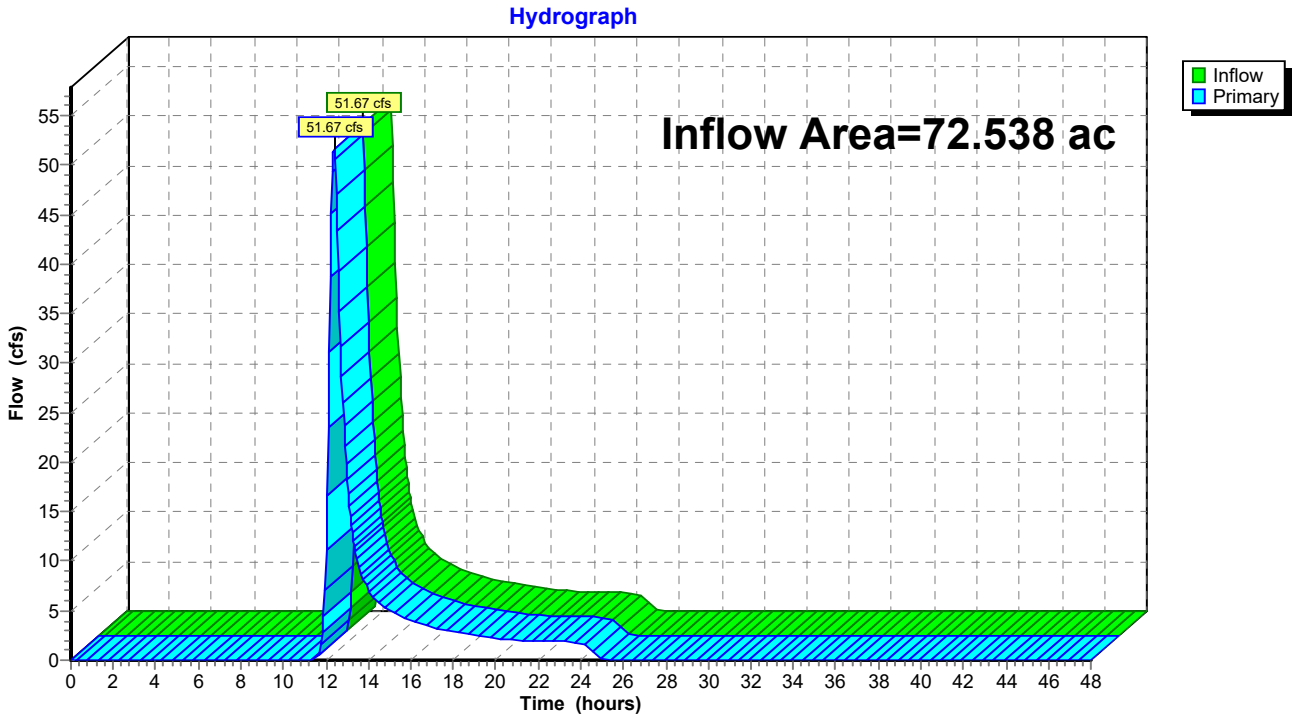


Summary for Link SP48:

Inflow Area = 72.538 ac, 2.48% Impervious, Inflow Depth = 1.06" for 10-year event
Inflow = 51.67 cfs @ 12.38 hrs, Volume= 6.430 af
Primary = 51.67 cfs @ 12.38 hrs, Volume= 6.430 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP48:

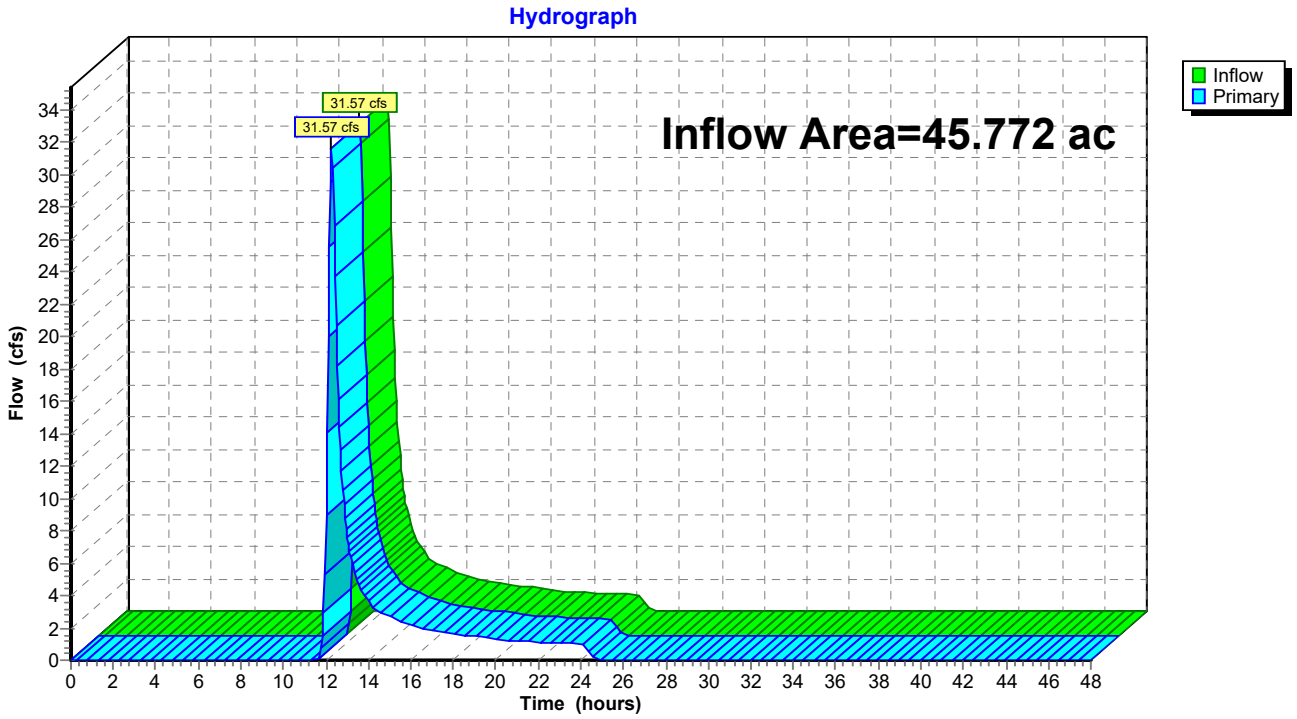


Summary for Link SP50:

Inflow Area = 45.772 ac, 1.25% Impervious, Inflow Depth = 0.90" for 10-year event
Inflow = 31.57 cfs @ 12.27 hrs, Volume= 3.438 af
Primary = 31.57 cfs @ 12.27 hrs, Volume= 3.438 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP50:

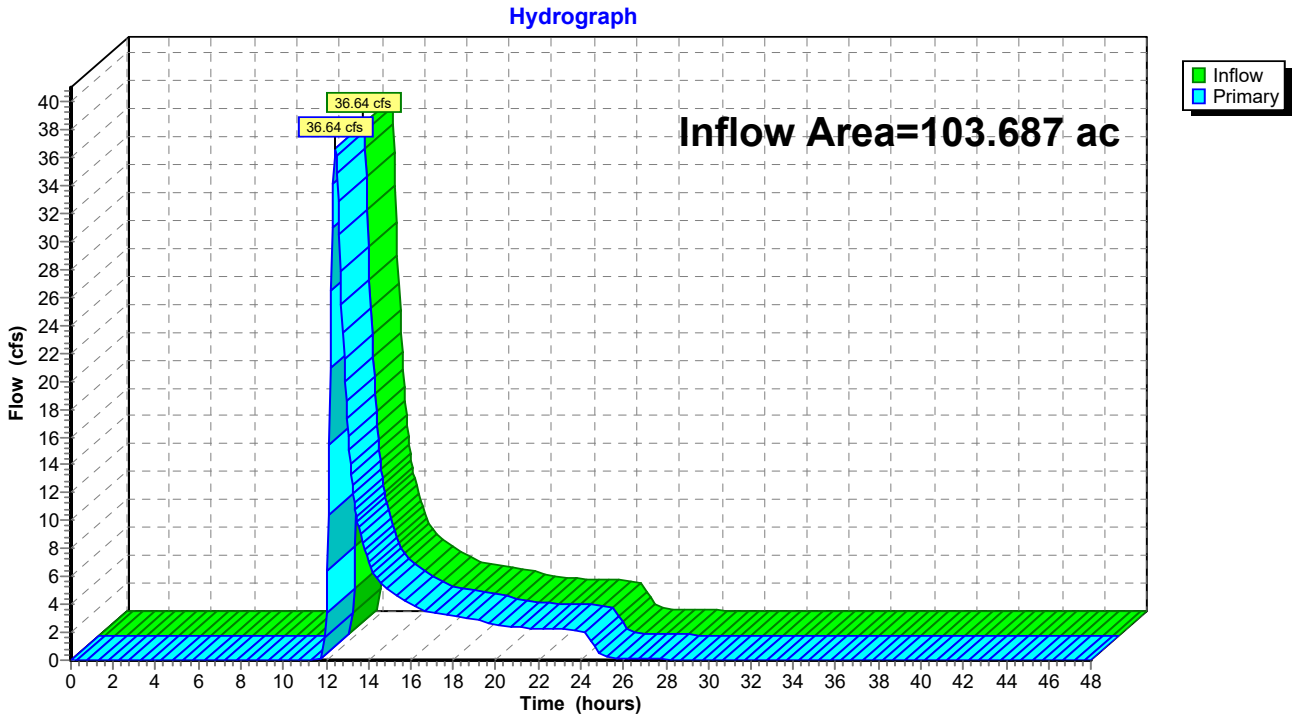


Summary for Link SP51:

Inflow Area = 103.687 ac, 0.70% Impervious, Inflow Depth > 0.67" for 10-year event
Inflow = 36.64 cfs @ 12.45 hrs, Volume= 5.793 af
Primary = 36.64 cfs @ 12.45 hrs, Volume= 5.793 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP51:

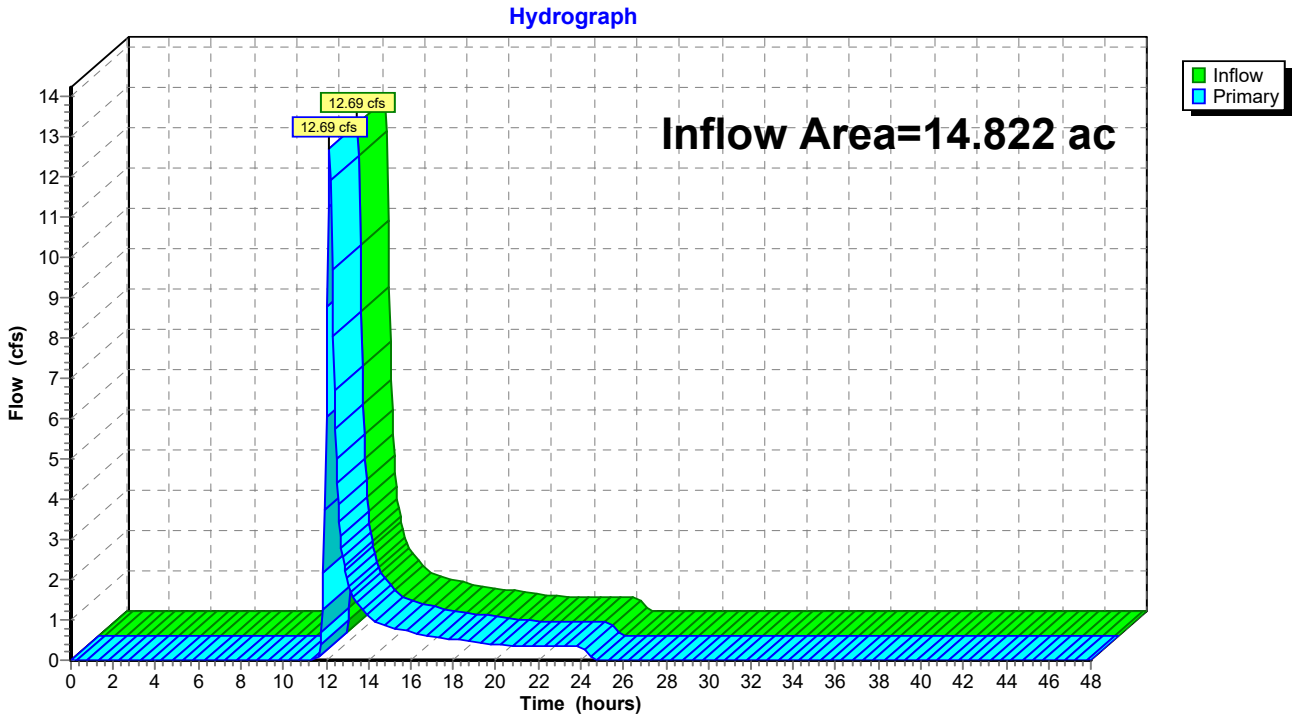


Summary for Link SP52:

Inflow Area = 14.822 ac, 2.79% Impervious, Inflow Depth = 0.90" for 10-year event
Inflow = 12.69 cfs @ 12.17 hrs, Volume= 1.114 af
Primary = 12.69 cfs @ 12.17 hrs, Volume= 1.114 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP52:

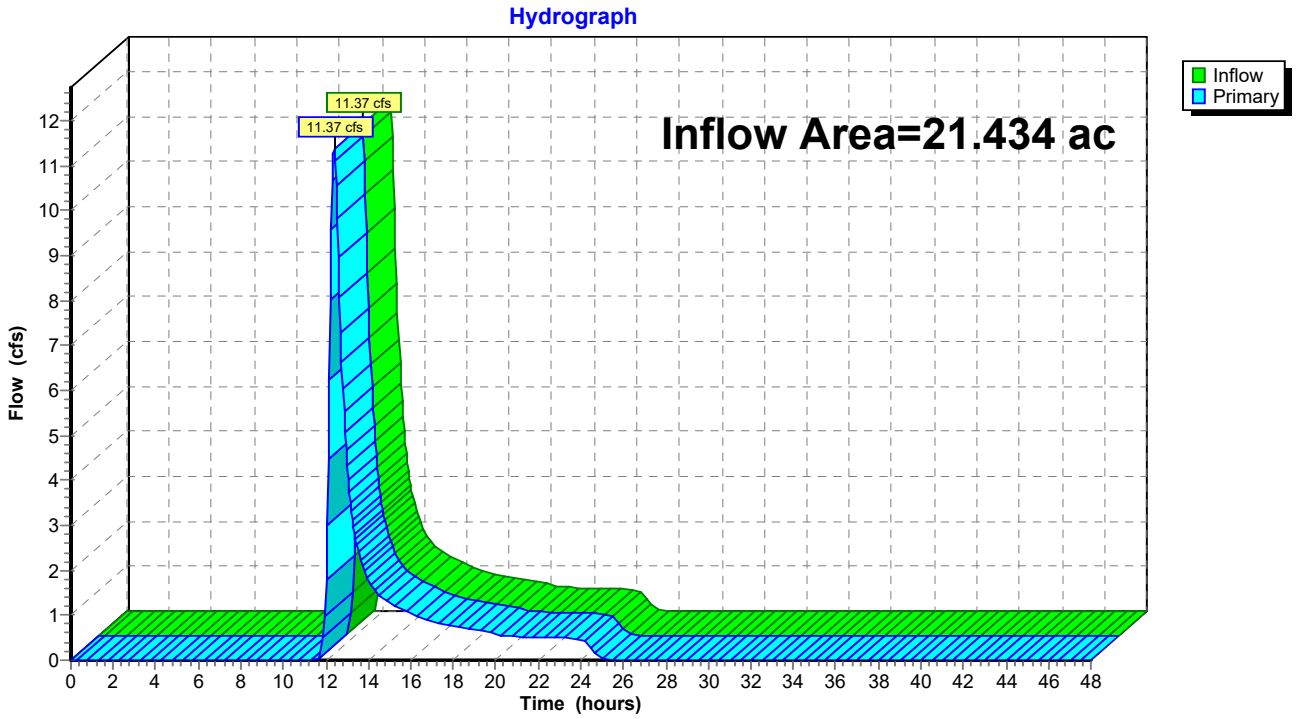


Summary for Link SP53:

Inflow Area = 21.434 ac, 1.80% Impervious, Inflow Depth = 0.85" for 10-year event
Inflow = 11.37 cfs @ 12.39 hrs, Volume= 1.518 af
Primary = 11.37 cfs @ 12.39 hrs, Volume= 1.518 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP53:

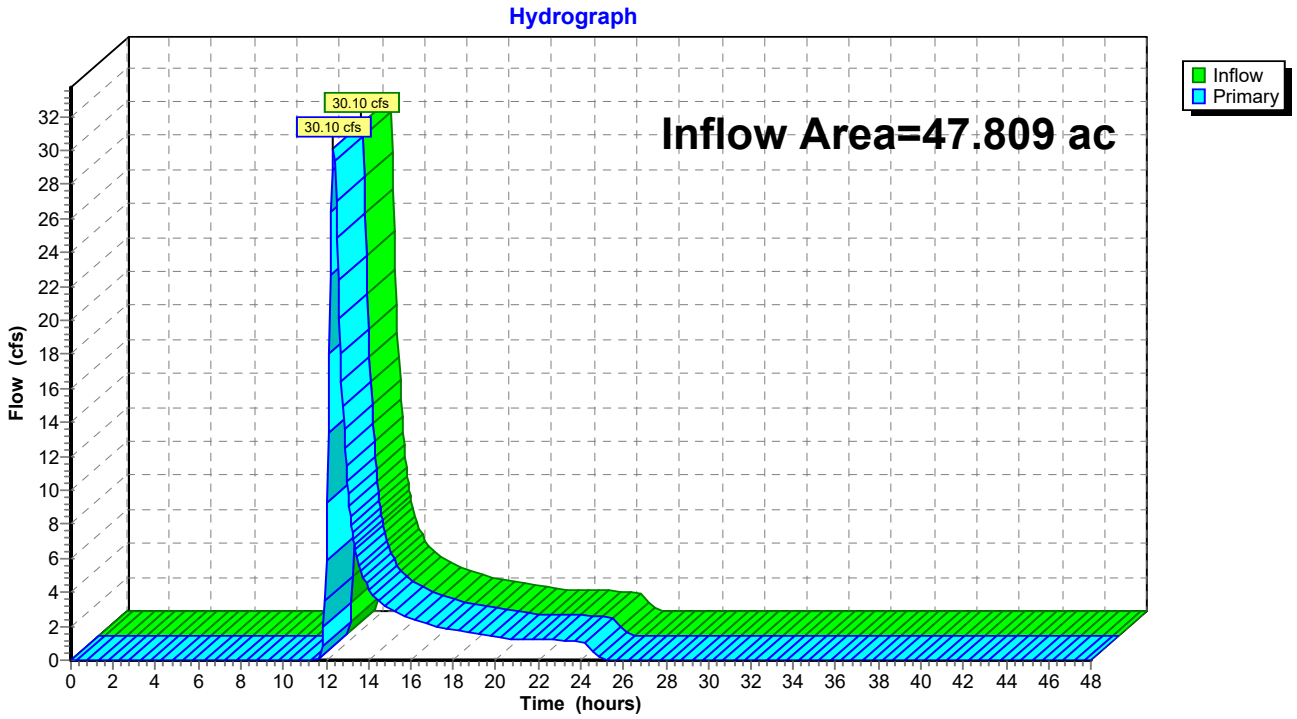


Summary for Link SP54:

Inflow Area = 47.809 ac, 7.82% Impervious, Inflow Depth = 0.95" for 10-year event
Inflow = 30.10 cfs @ 12.37 hrs, Volume= 3.801 af
Primary = 30.10 cfs @ 12.37 hrs, Volume= 3.801 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP54:

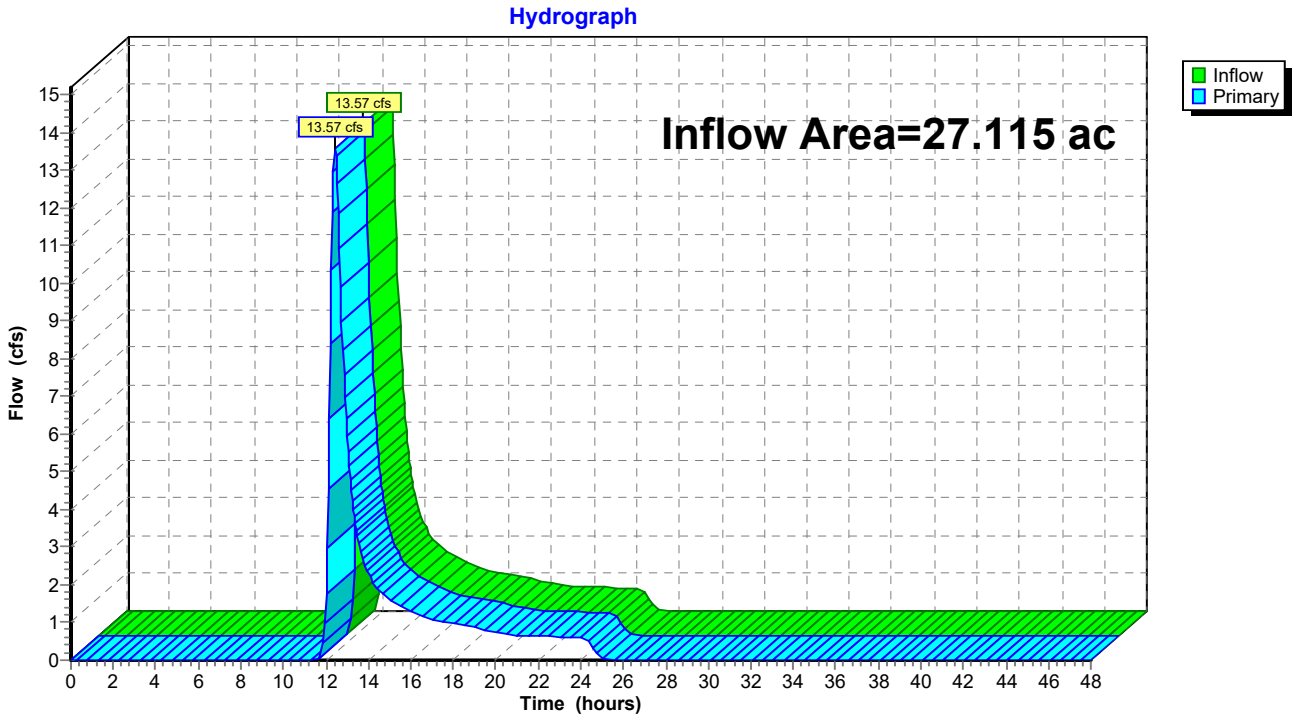


Summary for Link SP55:

Inflow Area = 27.115 ac, 0.71% Impervious, Inflow Depth = 0.85" for 10-year event
Inflow = 13.57 cfs @ 12.44 hrs, Volume= 1.921 af
Primary = 13.57 cfs @ 12.44 hrs, Volume= 1.921 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP55:

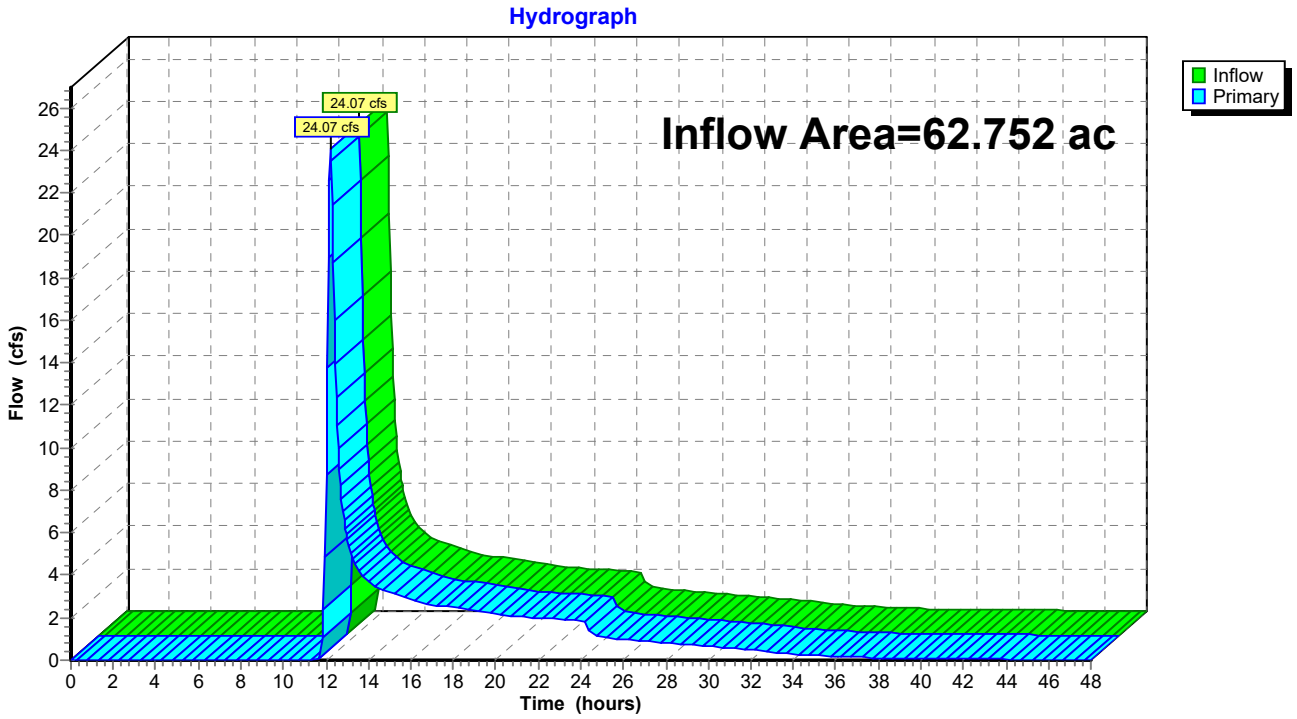


Summary for Link SP56:

Inflow Area = 62.752 ac, 0.00% Impervious, Inflow Depth > 0.81" for 10-year event
Inflow = 24.07 cfs @ 12.21 hrs, Volume= 4.252 af
Primary = 24.07 cfs @ 12.21 hrs, Volume= 4.252 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP56:



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment25.1S: Sub 25.1 Runoff Area=3.422 ac 0.00% Impervious Runoff Depth=2.58"
Flow Length=564' Tc=12.4 min CN=70 Runoff=12.38 cfs 0.737 af

Subcatchment25S: Sub 25 Runoff Area=15.820 ac 0.63% Impervious Runoff Depth=2.86"
Flow Length=1,104' Tc=22.2 min CN=73 Runoff=47.04 cfs 3.768 af

Subcatchment26S: Sub 26 Runoff Area=14.925 ac 5.39% Impervious Runoff Depth=2.15"
Flow Length=1,324' Tc=18.0 min CN=65 Runoff=36.72 cfs 2.674 af

Subcatchment27.1S: Sub 27.1 Runoff Area=3.749 ac 0.00% Impervious Runoff Depth=2.67"
Flow Length=831' Tc=14.7 min CN=71 Runoff=12.98 cfs 0.836 af

Subcatchment27S: Sub 27 Runoff Area=19.044 ac 2.34% Impervious Runoff Depth=2.23"
Flow Length=1,602' Tc=17.8 min CN=66 Runoff=49.27 cfs 3.547 af

Subcatchment28.1S: Sub 28.1 Runoff Area=2.160 ac 0.00% Impervious Runoff Depth=2.67"
Flow Length=409' Tc=11.9 min CN=71 Runoff=8.23 cfs 0.481 af

Subcatchment28S: Sub 28 Runoff Area=19.213 ac 0.59% Impervious Runoff Depth=2.15"
Flow Length=1,727' Tc=27.4 min UI Adjusted CN=65 Runoff=36.44 cfs 3.442 af

Subcatchment29S: Sub 29 Runoff Area=19.201 ac 1.25% Impervious Runoff Depth=1.90"
Flow Length=1,656' Tc=26.3 min CN=62 Runoff=32.39 cfs 3.042 af

Subcatchment30.1S: Sub 30.1 Runoff Area=4.003 ac 0.00% Impervious Runoff Depth=2.67"
Flow Length=1,131' Tc=29.7 min CN=71 Runoff=9.22 cfs 0.892 af

Subcatchment30S: Sub 30 Runoff Area=32.197 ac 1.38% Impervious Runoff Depth=1.98"
Flow Length=2,349' Tc=29.2 min CN=63 Runoff=53.19 cfs 5.321 af

Subcatchment31.1S: Sub 31.1 Runoff Area=0.925 ac 0.00% Impervious Runoff Depth=2.58"
Flow Length=267' Tc=10.3 min CN=70 Runoff=3.58 cfs 0.199 af

Subcatchment31S: Sub 31 Runoff Area=24.402 ac 0.00% Impervious Runoff Depth=1.90"
Flow Length=2,354' Tc=30.5 min CN=62 Runoff=37.24 cfs 3.866 af

Subcatchment32.1S: 32.1S Runoff Area=5.376 ac 0.00% Impervious Runoff Depth=2.58"
Flow Length=867' Tc=20.0 min CN=70 Runoff=15.23 cfs 1.158 af

Subcatchment32S: Sub 32 Runoff Area=39.541 ac 7.07% Impervious Runoff Depth=1.98"
Flow Length=2,402' Tc=27.3 min CN=63 Runoff=68.19 cfs 6.534 af

Subcatchment33.1S: 33.1S Runoff Area=12.768 ac 1.41% Impervious Runoff Depth=2.86"
Flow Length=1,561' Tc=36.2 min CN=73 Runoff=27.66 cfs 3.041 af

Subcatchment33S: Sub 33 Runoff Area=78.535 ac 0.56% Impervious Runoff Depth=1.51"
Flow Length=1,749' Tc=22.2 min CN=57 Runoff=110.77 cfs 9.874 af

Subcatchment34S: Sub 34 Runoff Area=25.795 ac 1.16% Impervious Runoff Depth=1.90"
Flow Length=1,380' Tc=24.0 min CN=62 Runoff=46.09 cfs 4.087 af

Subcatchment35S: Sub 35 Runoff Area=54.779 ac 2.01% Impervious Runoff Depth=2.15"
Flow Length=3,081' Tc=40.4 min CN=65 Runoff=79.38 cfs 9.814 af

Subcatchment36S: Sub 36 Runoff Area=46.618 ac 0.00% Impervious Runoff Depth=1.98"
Flow Length=1,996' Tc=23.3 min CN=63 Runoff=89.16 cfs 7.704 af

Subcatchment37S: Sub 37 Runoff Area=10.440 ac 5.80% Impervious Runoff Depth=1.74"
Flow Length=1,926' Tc=33.1 min CN=60 Runoff=13.48 cfs 1.515 af

Subcatchment38S: Sub 38 Runoff Area=71.315 ac 1.11% Impervious Runoff Depth=2.07"
Flow Length=3,404' Tc=47.6 min CN=64 Runoff=87.58 cfs 12.278 af

Subcatchment39S: Sub 39 Runoff Area=114.576 ac 0.49% Impervious Runoff Depth=1.90"
Flow Length=2,852' Tc=30.0 min CN=62 Runoff=176.76 cfs 18.153 af

Subcatchment40S: Sub 40 Runoff Area=20.880 ac 7.94% Impervious Runoff Depth=2.50"
Flow Length=1,917' Tc=28.9 min CN=69 Runoff=45.31 cfs 4.343 af

Subcatchment41S: Sub 41 Runoff Area=60.164 ac 0.00% Impervious Runoff Depth=1.90"
Flow Length=2,626' Tc=33.1 min CN=62 Runoff=86.70 cfs 9.532 af

Subcatchment42.1S: 42.1P Runoff Area=1.588 ac 0.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=71 Runoff=7.32 cfs 0.354 af

Subcatchment42.2S: 42.2P Runoff Area=3.269 ac 0.00% Impervious Runoff Depth=2.32"
Tc=6.0 min CN=67 Runoff=13.21 cfs 0.632 af

Subcatchment42S: Sub 42 Runoff Area=45.032 ac 0.00% Impervious Runoff Depth=1.74"
Flow Length=1,067' Tc=27.0 min CN=60 Runoff=66.79 cfs 6.533 af

Subcatchment48S: Sub 48 Runoff Area=72.538 ac 2.48% Impervious Runoff Depth=2.67"
Flow Length=4,007' Tc=38.1 min CN=71 Runoff=140.87 cfs 16.169 af

Subcatchment49.1S: Sub 49.1 Runoff Area=4.740 ac 6.79% Impervious Runoff Depth=2.15"
Tc=10.0 min CN=65 Runoff=15.27 cfs 0.849 af

Subcatchment49.2S: 49.2S Runoff Area=3.533 ac 0.14% Impervious Runoff Depth=2.58"
Tc=6.0 min CN=70 Runoff=15.75 cfs 0.761 af

Subcatchment49S: Sub 49 Runoff Area=31.263 ac 0.62% Impervious Runoff Depth=2.15"
Flow Length=2,999' Tc=38.0 min CN=65 Runoff=47.43 cfs 5.601 af

Subcatchment50S: Sub 50 Runoff Area=45.772 ac 1.25% Impervious Runoff Depth=2.41"
Flow Length=2,533' Tc=29.4 min CN=68 Runoff=94.35 cfs 9.184 af

Subcatchment51.1S: 51.1S Runoff Area=8.131 ac 0.00% Impervious Runoff Depth=2.86"
Flow Length=1,025' Tc=26.3 min CN=73 Runoff=21.79 cfs 1.936 af

Subcatchment51S: Sub 51 Runoff Area=95.556 ac 0.76% Impervious Runoff Depth=2.07"
Flow Length=3,172' Tc=41.1 min CN=64 Runoff=130.61 cfs 16.451 af

Subcatchment52.1S: 52.1S Runoff Area=0.805 ac 0.00% Impervious Runoff Depth=2.67"
Tc=0.0 min CN=71 Runoff=4.43 cfs 0.179 af

Subcatchment52S: Sub 52 Runoff Area=14.017 ac 2.95% Impervious Runoff Depth=2.50"
Flow Length=1,182' Tc=22.0 min CN=69 Runoff=36.22 cfs 2.915 af

Subcatchment53S: Sub 53 Runoff Area=21.434 ac 1.80% Impervious Runoff Depth=2.32"
Flow Length=2,555' Tc=37.9 min CN=67 Runoff=35.62 cfs 4.145 af

Subcatchment54S: Sub 54 Runoff Area=47.809 ac 7.82% Impervious Runoff Depth=2.50"
Flow Length=3,546' Tc=37.2 min UI Adjusted CN=69 Runoff=87.54 cfs 9.943 af

Subcatchment55S: Sub 55 Runoff Area=27.115 ac 0.71% Impervious Runoff Depth=2.32"
Flow Length=2,240' Tc=41.1 min CN=67 Runoff=42.53 cfs 5.244 af

Subcatchment56.1S: 56.1S Runoff Area=27.373 ac 0.00% Impervious Runoff Depth=2.58"
Flow Length=1,864' Tc=23.1 min CN=70 Runoff=71.32 cfs 5.896 af

Subcatchment56S: Sub 56 Runoff Area=35.379 ac 0.00% Impervious Runoff Depth=2.23"
Flow Length=1,907' Tc=23.9 min CN=66 Runoff=76.56 cfs 6.589 af

Reach 33R: Avg. Flow Depth=1.83' Max Vel=3.25 fps Inflow=36.67 cfs 4.087 af
n=0.100 L=1,875.0' S=0.0597 '/' Capacity=10.60 cfs Outflow=29.05 cfs 4.087 af

Reach 39R: Avg. Flow Depth=1.45' Max Vel=4.43 fps Inflow=45.31 cfs 4.343 af
n=0.100 L=1,110.0' S=0.0991 '/' Capacity=86.68 cfs Outflow=43.63 cfs 4.343 af

Reach 42R: S-NSD-16 Avg. Flow Depth=1.85' Max Vel=3.71 fps Inflow=47.43 cfs 5.601 af
n=0.100 L=1,790.0' S=0.0531 '/' Capacity=51.95 cfs Outflow=44.01 cfs 5.601 af

Pond 25.1P: 25.1P Peak Elev=606.40' Storage=15,600 cf Inflow=12.38 cfs 0.737 af
Primary=1.15 cfs 0.647 af Secondary=0.00 cfs 0.000 af Outflow=1.15 cfs 0.647 af

Pond 27.1P: 27.1P Peak Elev=553.76' Storage=13,224 cf Inflow=12.98 cfs 0.836 af
Primary=5.73 cfs 0.512 af Secondary=3.36 cfs 0.110 af Outflow=9.10 cfs 0.622 af

Pond 28.1P: 28.1P Peak Elev=560.53' Storage=10,718 cf Inflow=8.23 cfs 0.481 af
Primary=0.79 cfs 0.341 af Secondary=0.11 cfs 0.003 af Outflow=0.90 cfs 0.344 af

Pond 30.1P: 30.1P Peak Elev=462.21' Storage=15,801 cf Inflow=9.22 cfs 0.892 af
Discarded=0.02 cfs 0.048 af Primary=3.18 cfs 0.655 af Secondary=0.00 cfs 0.000 af Outflow=3.20 cfs 0.704 af

Pond 31.1P: 31.1P Peak Elev=511.79' Storage=7,727 cf Inflow=3.58 cfs 0.199 af
Discarded=0.02 cfs 0.061 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.061 af

Pond 32.1P: 32.1P Peak Elev=554.66' Storage=33,162 cf Inflow=15.23 cfs 1.158 af
Primary=0.51 cfs 0.867 af Secondary=0.00 cfs 0.000 af Outflow=0.51 cfs 0.867 af

Pond 33.1P: 33.1P Peak Elev=593.26' Storage=103,992 cf Inflow=27.66 cfs 3.041 af
Primary=0.68 cfs 1.752 af Secondary=0.00 cfs 0.000 af Outflow=0.68 cfs 1.752 af

Pond 34P: VAN EPPS RD CULVERT Peak Elev=585.70' Storage=27,574 cf Inflow=46.09 cfs 4.087 af
Primary=10.51 cfs 3.304 af Secondary=26.16 cfs 0.783 af Outflow=36.67 cfs 4.087 af

Pond 42P: 42P Peak Elev=460.51' Storage=30,397 cf Inflow=20.60 cfs 0.986 af
Primary=0.40 cfs 0.482 af Secondary=0.05 cfs 0.010 af Outflow=0.45 cfs 0.492 af

Pond 49.1P: 49.1P Peak Elev=535.53' Storage=28,001 cf Inflow=15.27 cfs 0.849 af
Primary=0.27 cfs 0.135 af Secondary=0.16 cfs 0.079 af Outflow=0.43 cfs 0.214 af

Pond 49.2P: 49.2S Peak Elev=523.95' Storage=10,673 cf Inflow=15.75 cfs 0.761 af
Primary=2.74 cfs 0.502 af Secondary=8.63 cfs 0.183 af Outflow=11.36 cfs 0.685 af

Pond 51.1P: 51.1P Peak Elev=606.63' Storage=44,776 cf Inflow=21.79 cfs 1.936 af
Primary=3.09 cfs 1.232 af Secondary=1.18 cfs 0.082 af Outflow=4.27 cfs 1.314 af

Pond 52.1P: 52.1P Peak Elev=649.62' Storage=7,046 cf Inflow=4.43 cfs 0.179 af
Primary=0.04 cfs 0.030 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.030 af

Pond 56.1P: 56.1P Peak Elev=419.79' Storage=122,515 cf Inflow=71.32 cfs 5.896 af
Primary=13.35 cfs 5.090 af Secondary=4.14 cfs 0.343 af Outflow=17.48 cfs 5.433 af

Link SP25: Inflow=48.01 cfs 4.415 af
Primary=48.01 cfs 4.415 af

Link SP26: Inflow=36.72 cfs 2.674 af
Primary=36.72 cfs 2.674 af

Link SP27: Inflow=51.73 cfs 4.169 af
Primary=51.73 cfs 4.169 af

Link SP28: Inflow=36.93 cfs 3.787 af
Primary=36.93 cfs 3.787 af

Link SP29: Inflow=32.39 cfs 3.042 af
Primary=32.39 cfs 3.042 af

Link SP30: Inflow=53.26 cfs 5.976 af
Primary=53.26 cfs 5.976 af

Link SP34: Inflow=217.12 cfs 26.981 af
Primary=217.12 cfs 26.981 af

Link SP35: Inflow=79.38 cfs 9.814 af
Primary=79.38 cfs 9.814 af

Link SP36: Inflow=89.16 cfs 7.704 af
Primary=89.16 cfs 7.704 af

Link SP37: Inflow=13.48 cfs 1.515 af
Primary=13.48 cfs 1.515 af

Link SP38: Inflow=87.58 cfs 12.278 af
Primary=87.58 cfs 12.278 af

Link SP39: Inflow=215.84 cfs 22.496 af
Primary=215.84 cfs 22.496 af

Link SP41: Inflow=86.70 cfs 9.532 af
Primary=86.70 cfs 9.532 af

Link SP42: Inflow=84.26 cfs 13.525 af
Primary=84.26 cfs 13.525 af

Link SP48: Inflow=140.87 cfs 16.169 af
Primary=140.87 cfs 16.169 af

Link SP50: Inflow=94.35 cfs 9.184 af
Primary=94.35 cfs 9.184 af

Link SP51: Inflow=131.32 cfs 17.766 af
Primary=131.32 cfs 17.766 af

Link SP52: Inflow=36.22 cfs 2.945 af
Primary=36.22 cfs 2.945 af

Link SP53: Inflow=35.62 cfs 4.145 af
Primary=35.62 cfs 4.145 af

Link SP54: Inflow=87.54 cfs 9.943 af
Primary=87.54 cfs 9.943 af

Link SP55: Inflow=42.53 cfs 5.244 af
Primary=42.53 cfs 5.244 af

Link SP56: Inflow=77.99 cfs 12.022 af
Primary=77.99 cfs 12.022 af

Total Runoff Area = 1,185.202 ac Runoff Volume = 210.221 af Average Runoff Depth = 2.13"
98.40% Pervious = 1,166.275 ac 1.60% Impervious = 18.927 ac

Summary for Subcatchment 25.1S: Sub 25.1

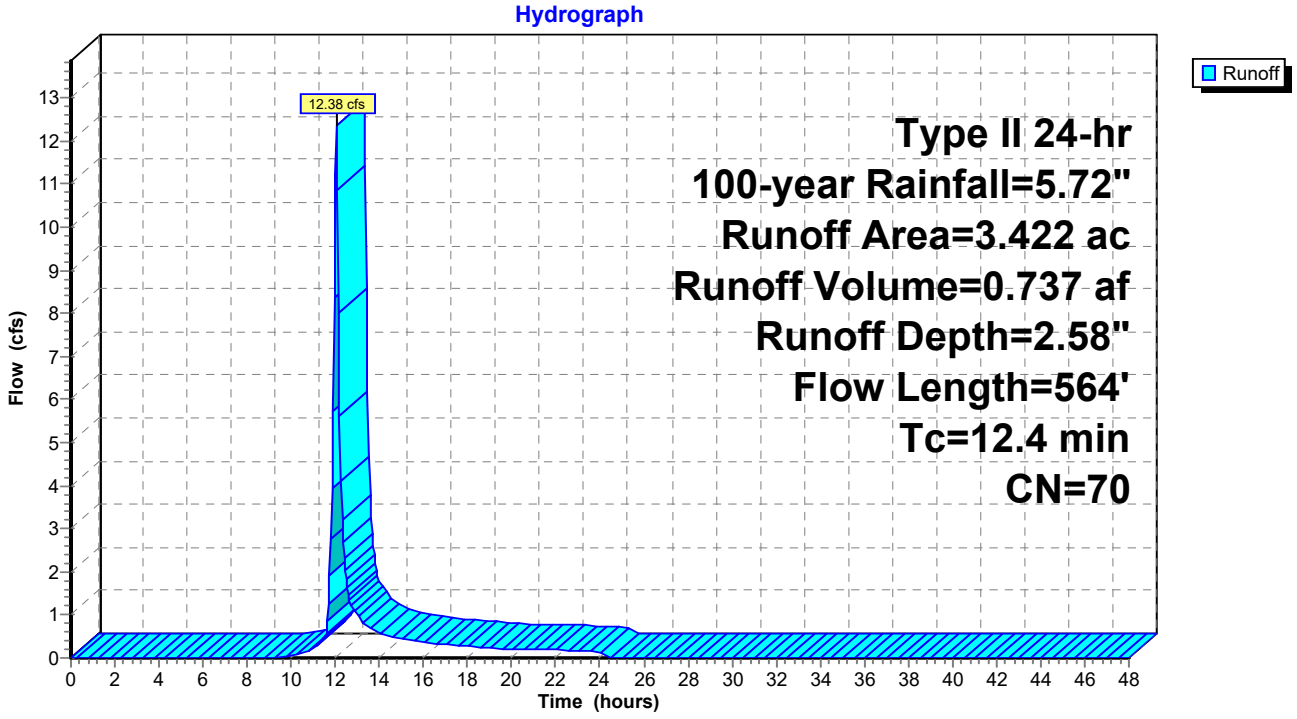
Runoff = 12.38 cfs @ 12.05 hrs, Volume= 0.737 af, Depth= 2.58"
Routed to Pond 25.1P : 25.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
2.622	71	Meadow, non-grazed, HSG C
0.225	96	Gravel surface, HSG C
0.575	58	Meadow, non-grazed, HSG B
3.422	70	Weighted Average
3.422		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	100	0.1080	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.5	35	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.3	429	0.0260	1.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.4	564	Total			

Subcatchment 25.1S: Sub 25.1



Summary for Subcatchment 25S: Sub 25

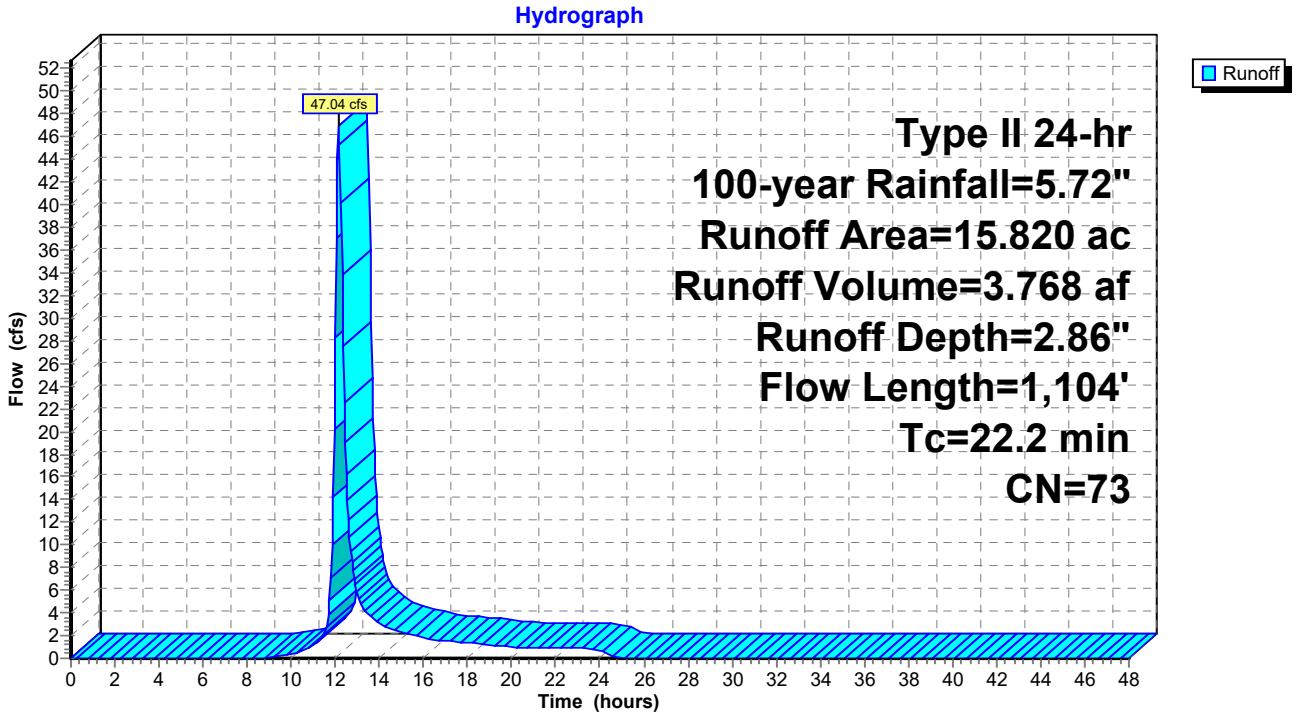
Runoff = 47.04 cfs @ 12.16 hrs, Volume= 3.768 af, Depth= 2.86"
Routed to Link SP25 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.050	48	Brush, Good, HSG B
0.279	65	Brush, Good, HSG C
0.181	73	Brush, Good, HSG D
0.099	98	Unconnected roofs, HSG D
0.210	58	Meadow, non-grazed, HSG B
10.133	71	Meadow, non-grazed, HSG C
3.694	78	Meadow, non-grazed, HSG D
0.455	74	>75% Grass cover, Good, HSG C
0.497	80	>75% Grass cover, Good, HSG D
0.020	70	Woods, Good, HSG C
0.202	96	Gravel surface, HSG D
15.820	73	Weighted Average
15.721		99.37% Pervious Area
0.099		0.63% Impervious Area
0.099		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0430	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.3	717	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	287		1.76		**Direct Entry, CF**
22.2	1,104	Total			

Subcatchment 25S: Sub 25



Summary for Subcatchment 26S: Sub 26

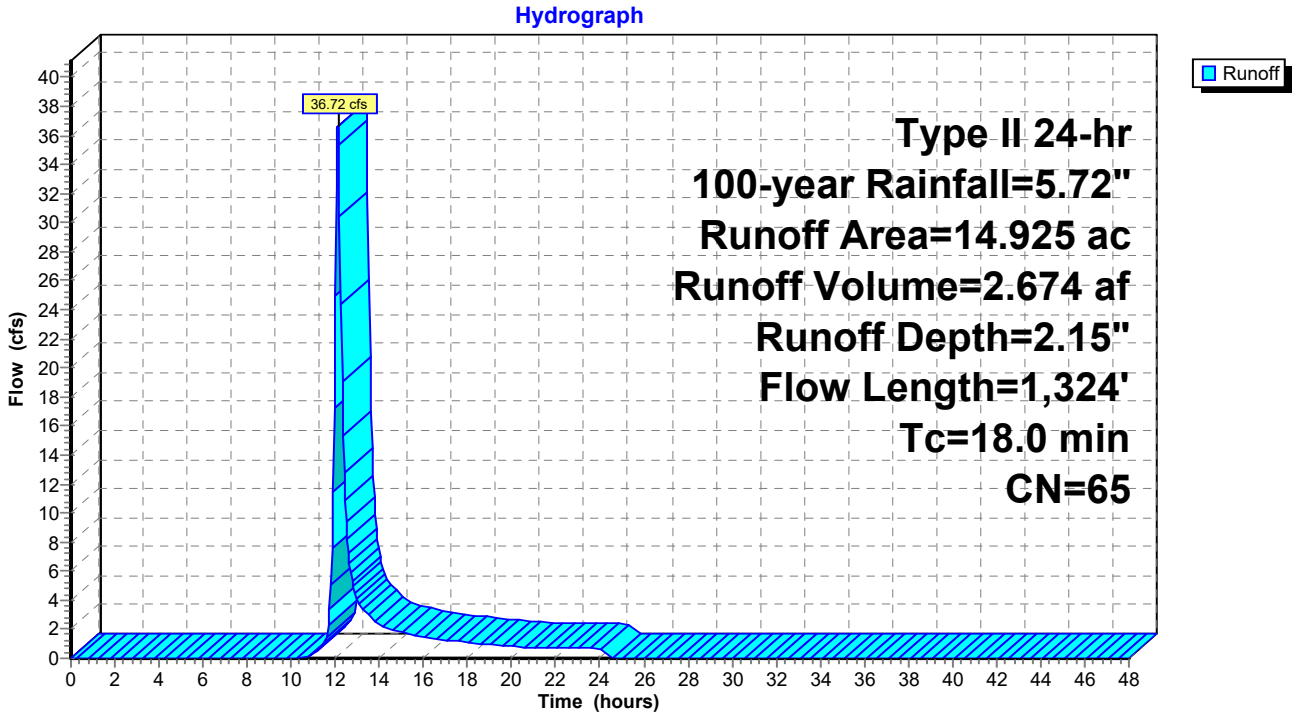
Runoff = 36.72 cfs @ 12.11 hrs, Volume= 2.674 af, Depth= 2.15"
Routed to Link SP26 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	0.114	48	Brush, Good, HSG B
	0.057	96	Gravel surface, HSG D
*	0.804	98	Impervious
	6.796	58	Meadow, non-grazed, HSG B
	2.989	71	Meadow, non-grazed, HSG C
	2.988	61	>75% Grass cover, Good, HSG B
	0.965	74	>75% Grass cover, Good, HSG C
	0.212	78	Meadow, non-grazed, HSG D
	14.925	65	Weighted Average
	14.121		94.61% Pervious Area
	0.804		5.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0280	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.2	340	0.1340	2.56		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	259	0.0540	1.63		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	625		3.06		**Direct Entry, CF**
18.0	1,324	Total			

Subcatchment 26S: Sub 26



Summary for Subcatchment 27.1S: Sub 27.1

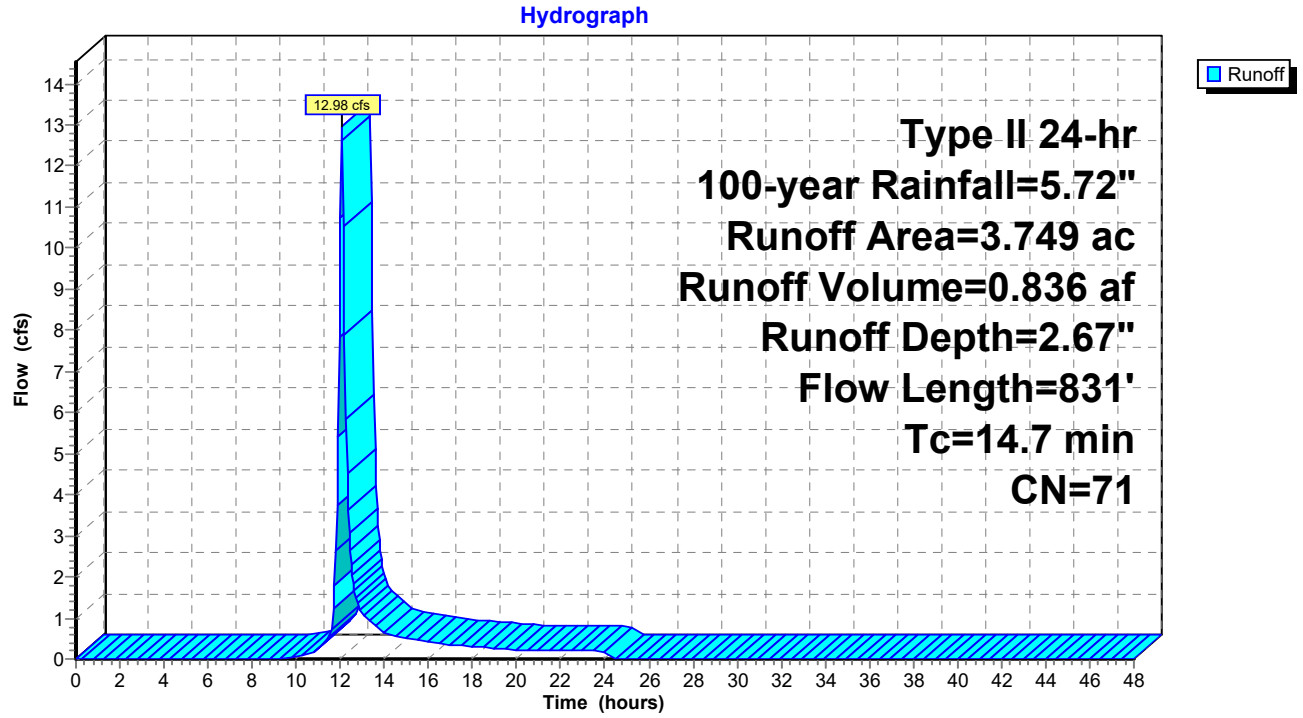
Runoff = 12.98 cfs @ 12.07 hrs, Volume= 0.836 af, Depth= 2.67"
Routed to Pond 27.1P : 27.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	3.035	71	Meadow, non-grazed, HSG C
	0.435	58	Meadow, non-grazed, HSG B
*	0.279	96	Gravel
	3.749	71	Weighted Average
	3.749		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.1	391	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.2	175	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	165	0.0530	1.61		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.7	831	Total			

Subcatchment 27.1S: Sub 27.1



Summary for Subcatchment 27S: Sub 27

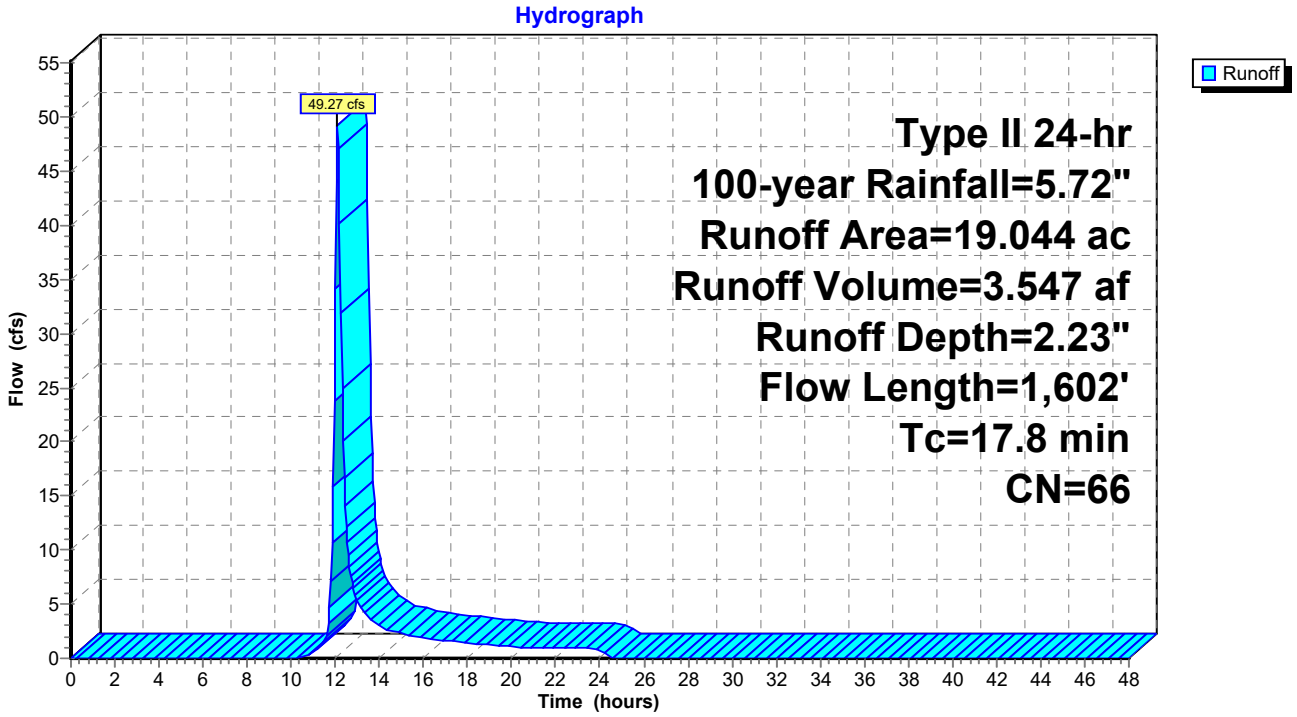
Runoff = 49.27 cfs @ 12.11 hrs, Volume= 3.547 af, Depth= 2.23"
Routed to Link SP27 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.254	96	Gravel surface, HSG D
0.064	98	Unconnected roofs, HSG D
8.719	58	Meadow, non-grazed, HSG B
7.839	71	Meadow, non-grazed, HSG C
0.231	61	>75% Grass cover, Good, HSG B
1.416	74	>75% Grass cover, Good, HSG C
0.140	80	>75% Grass cover, Good, HSG D
0.381	98	Water Surface, HSG D
19.044	66	Weighted Average
18.599		97.66% Pervious Area
0.445		2.34% Impervious Area
0.064		14.38% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0650	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
7.4	832	0.0720	1.88		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	670		3.19		**Direct Entry, CF**
17.8	1,602	Total			

Subcatchment 27S: Sub 27



Summary for Subcatchment 28.1S: Sub 28.1

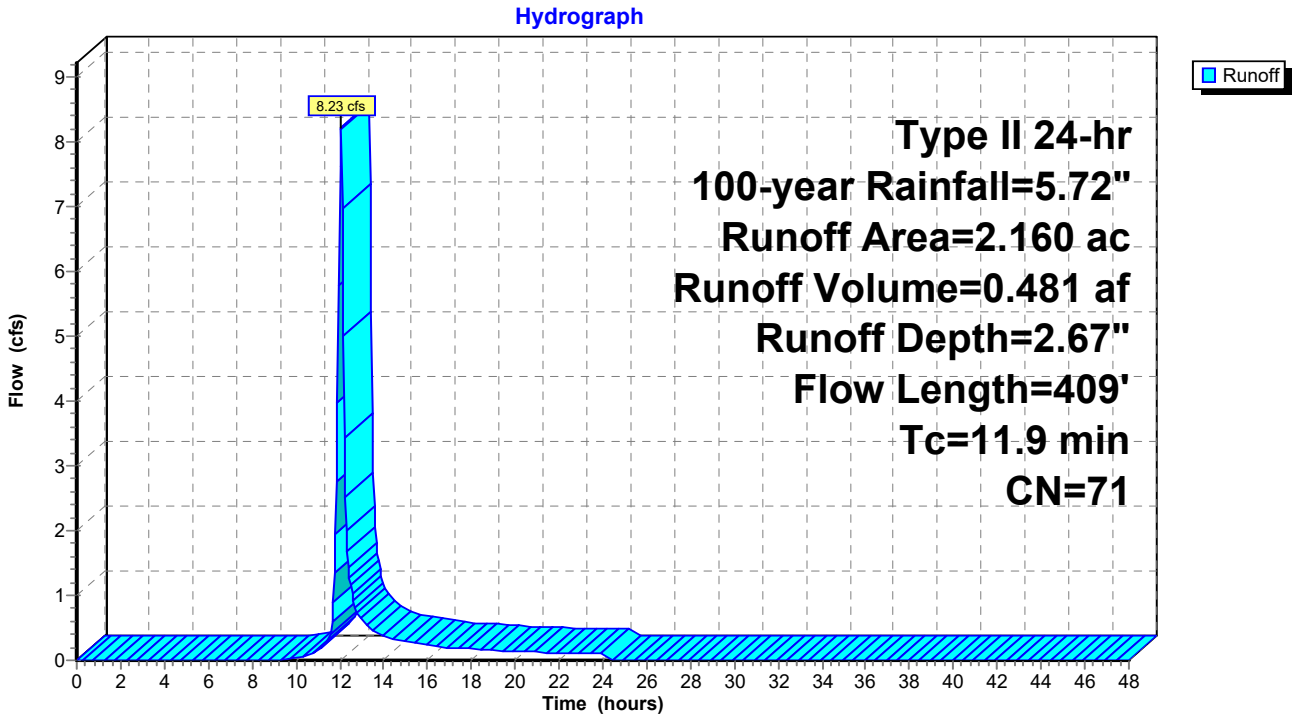
Runoff = 8.23 cfs @ 12.04 hrs, Volume= 0.481 af, Depth= 2.67"
Routed to Pond 28.1P : 28.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
*	0.051	96	Gravel
	0.068	58	Meadow, non-grazed, HSG B
	2.041	71	Meadow, non-grazed, HSG C
	2.160	71	Weighted Average
	2.160		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0420	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.7	309	0.0400	1.40		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
11.9	409	Total			

Subcatchment 28.1S: Sub 28.1



Summary for Subcatchment 28S: Sub 28

[47] Hint: Peak is 558% of capacity of segment #3

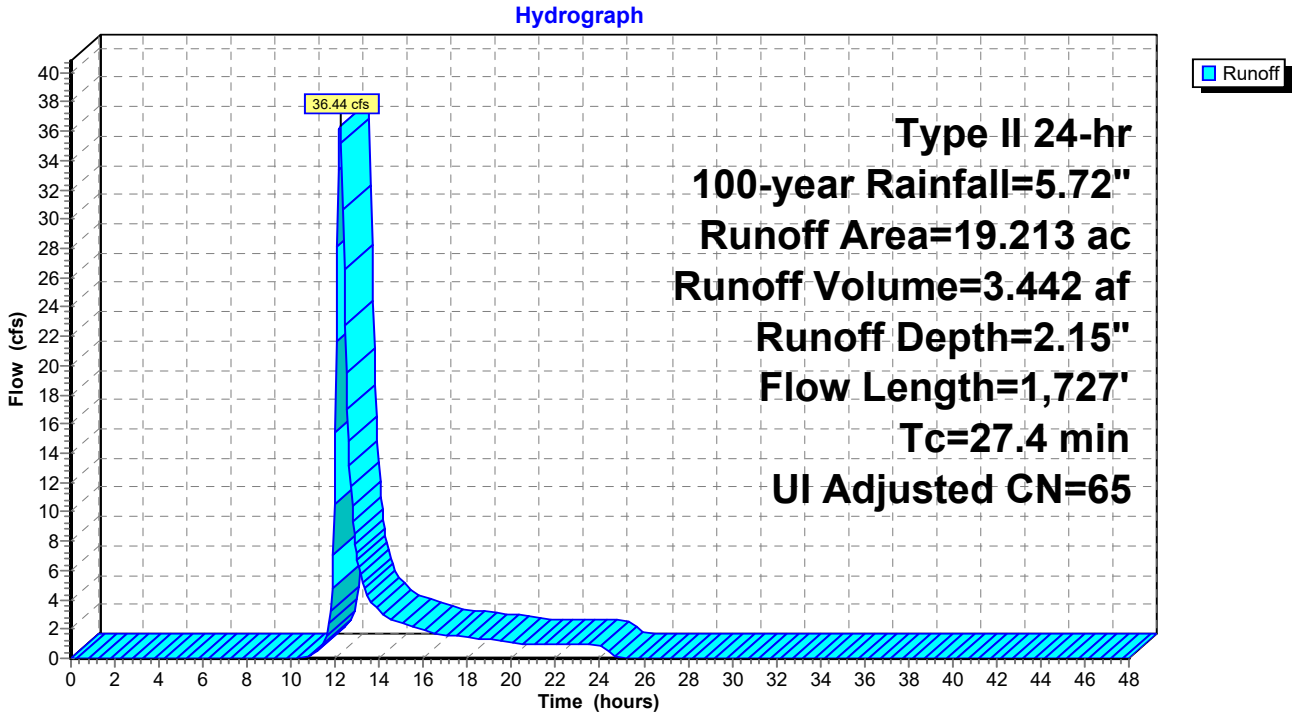
Runoff = 36.44 cfs @ 12.23 hrs, Volume= 3.442 af, Depth= 2.15"
Routed to Link SP28 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Adj	Description
0.547	96		Gravel surface, HSG D
0.114	98		Unconnected roofs, HSG D
8.804	58		Meadow, non-grazed, HSG B
7.984	71		Meadow, non-grazed, HSG C
0.902	61		>75% Grass cover, Good, HSG B
0.862	74		>75% Grass cover, Good, HSG C
19.213	66	65	Weighted Average, UI Adjusted
19.099			99.41% Pervious Area
0.114			0.59% Impervious Area
0.114			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0070	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
7.4	819	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.1	808	0.0420	4.36	6.53	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
27.4	1,727	Total			

Subcatchment 28S: Sub 28



Summary for Subcatchment 29S: Sub 29

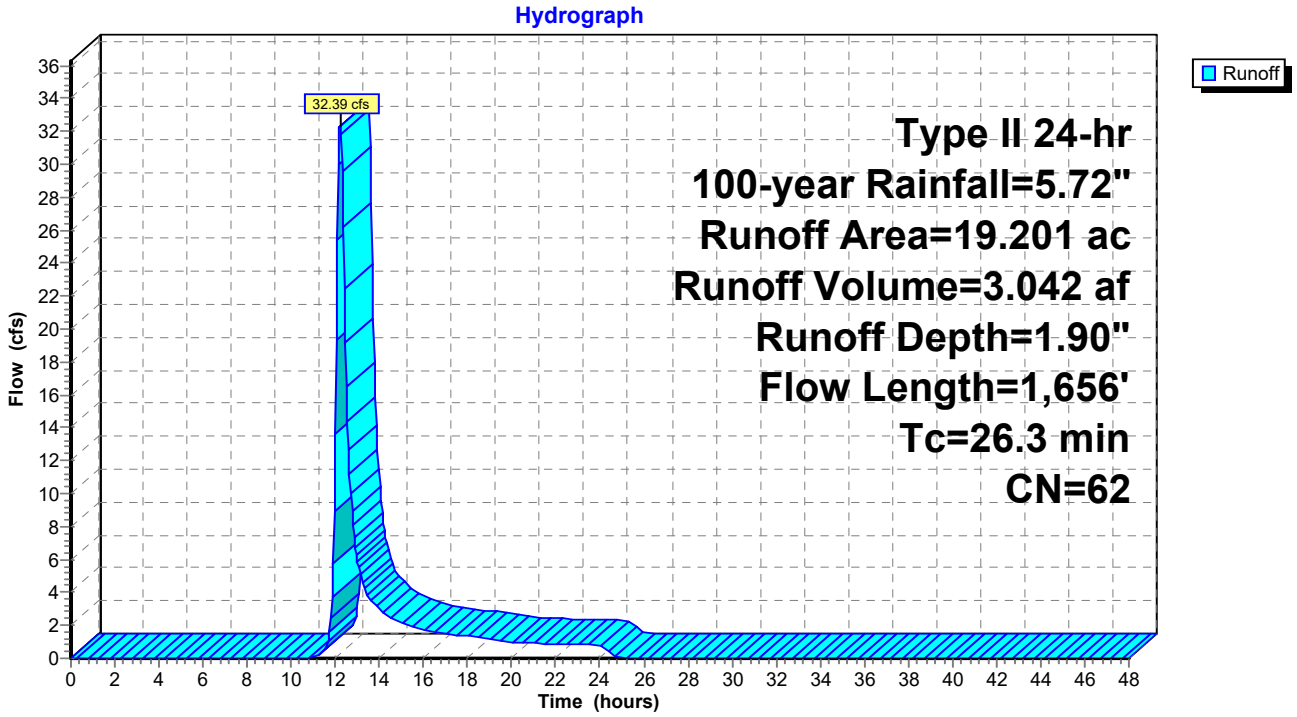
Runoff = 32.39 cfs @ 12.22 hrs, Volume= 3.042 af, Depth= 1.90"
Routed to Link SP29 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.326	96	Gravel surface, HSG D
0.240	98	Unconnected roofs, HSG D
14.674	58	Meadow, non-grazed, HSG B
3.955	71	Meadow, non-grazed, HSG C
0.006	55	Woods, Good, HSG B
19.201	62	Weighted Average
18.961		98.75% Pervious Area
0.240		1.25% Impervious Area
0.240		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0350	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
16.5	1,490	0.0460	1.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	66		1.22		**Direct Entry, CF**
26.3	1,656	Total			

Subcatchment 29S: Sub 29



Summary for Subcatchment 30.1S: Sub 30.1

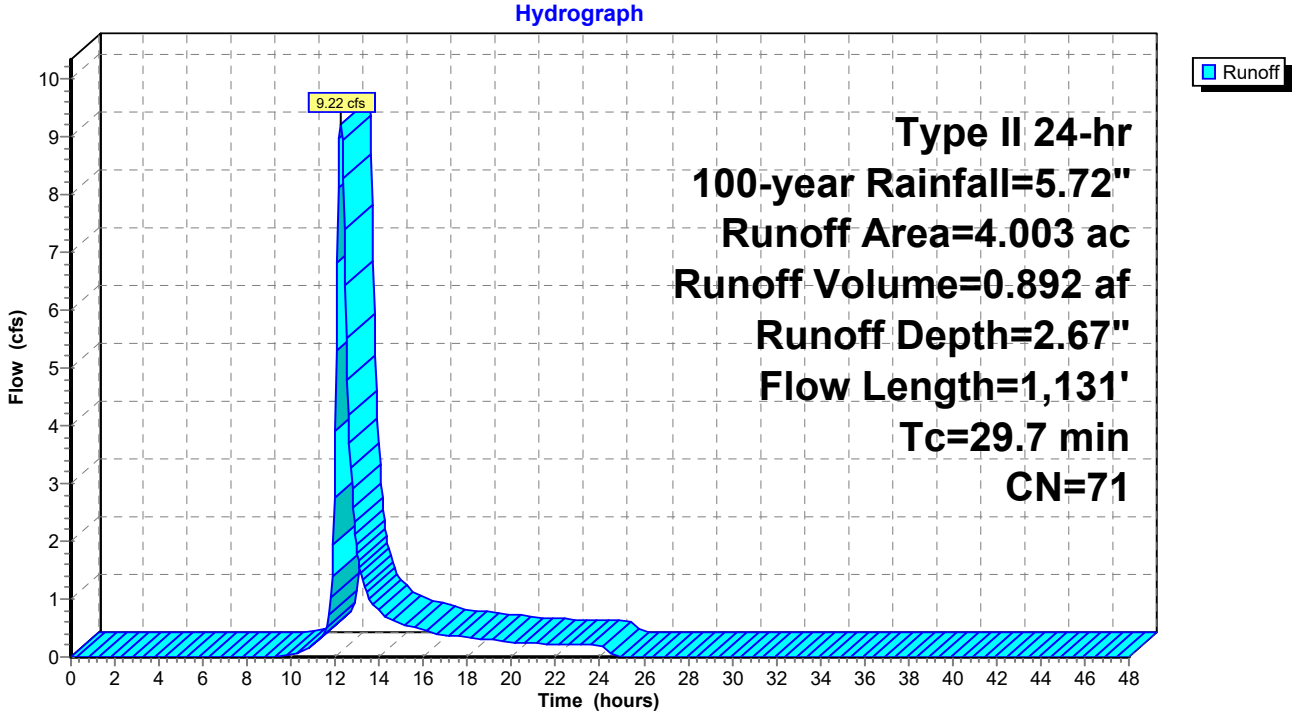
Runoff = 9.22 cfs @ 12.25 hrs, Volume= 0.892 af, Depth= 2.67"
Routed to Pond 30.1P : 30.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
4.003	71	Meadow, non-grazed, HSG C
4.003		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0090	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
14.4	1,031	0.0290	1.19		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
29.7	1,131	Total			

Subcatchment 30.1S: Sub 30.1



Summary for Subcatchment 30S: Sub 30

[47] Hint: Peak is 865% of capacity of segment #6

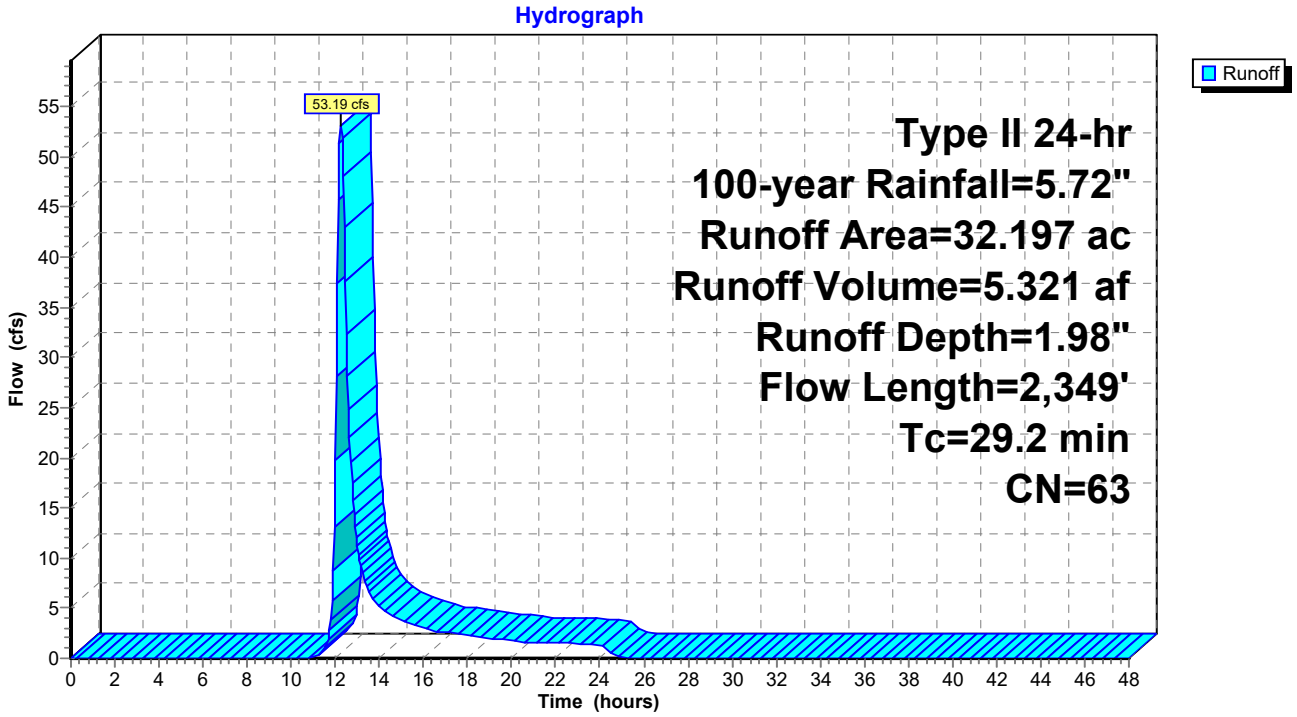
Runoff = 53.19 cfs @ 12.25 hrs, Volume= 5.321 af, Depth= 1.98"
Routed to Link SP30 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.214	48	Brush, Good, HSG B
0.283	65	Brush, Good, HSG C
1.013	96	Gravel surface, HSG D
0.445	98	Unconnected roofs, HSG D
19.622	58	Meadow, non-grazed, HSG B
8.229	71	Meadow, non-grazed, HSG C
0.221	61	>75% Grass cover, Good, HSG B
0.026	74	>75% Grass cover, Good, HSG C
2.132	55	Woods, Good, HSG B
0.012	70	Woods, Good, HSG C
32.197	63	Weighted Average
31.752		98.62% Pervious Area
0.445		1.38% Impervious Area
0.445		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.4	228	0.0260	1.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	171	0.1050	4.86		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.8	279	0.0570	1.67		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.5	554	0.0410	1.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.8	1,017	0.0290	3.52	6.15	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 3.0 '/' Top.W=5.00' n= 0.035 Earth, dense weeds
29.2	2,349	Total			

Subcatchment 30S: Sub 30



Summary for Subcatchment 31.1S: Sub 31.1

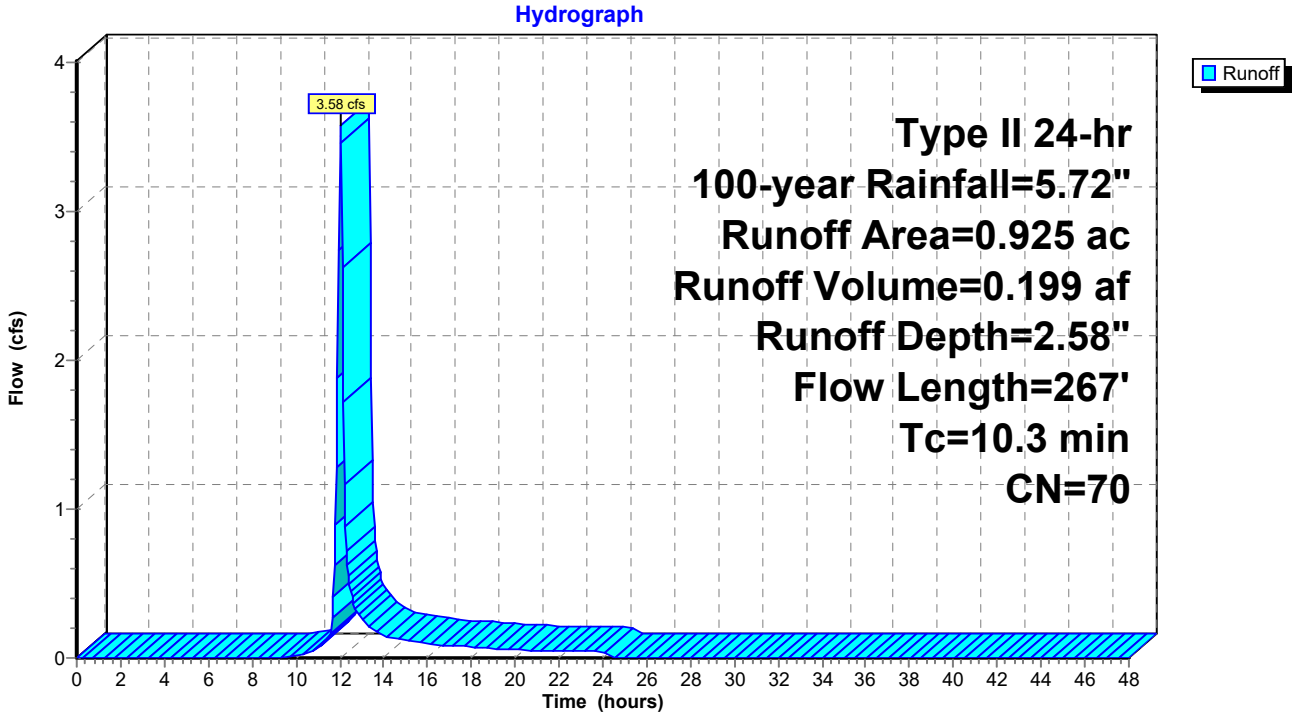
Runoff = 3.58 cfs @ 12.02 hrs, Volume= 0.199 af, Depth= 2.58"
Routed to Pond 31.1P : 31.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.047	58	Meadow, non-grazed, HSG B
0.878	71	Meadow, non-grazed, HSG C
0.925	70	Weighted Average
0.925		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	100	0.0330	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.9	90	0.0522	1.60		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	77	0.0130	4.02	20.10	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 3.0 '/' Top.W=8.00' n= 0.030 Earth, grassed & winding
10.3	267	Total			

Subcatchment 31.1S: Sub 31.1



Summary for Subcatchment 31S: Sub 31

[47] Hint: Peak is 890% of capacity of segment #3

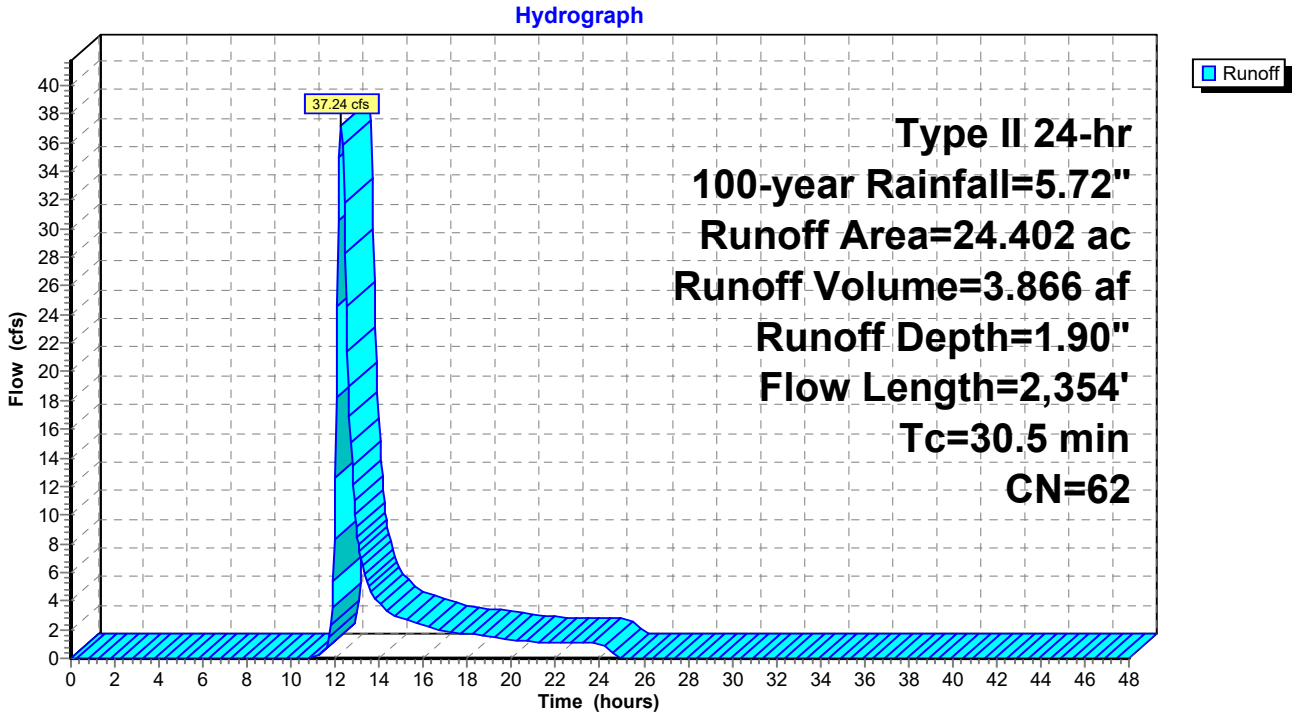
Runoff = 37.24 cfs @ 12.27 hrs, Volume= 3.866 af, Depth= 1.90"
Routed to Link SP34 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.029	48	Brush, Good, HSG B
14.311	58	Meadow, non-grazed, HSG B
6.600	71	Meadow, non-grazed, HSG C
2.870	55	Woods, Good, HSG B
0.044	70	Woods, Good, HSG C
0.548	96	Gravel surface, HSG D
24.402	62	Weighted Average
24.402		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0420	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
18.9	1,401	0.0310	1.23		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	853	0.0938	4.18	4.18	**Parabolic Channel,** W=3.00' D=0.50' Area=1.0 sf Perim=3.2' n= 0.050 Mountain streams w/large boulders
30.5	2,354	Total			

Subcatchment 31S: Sub 31



Summary for Subcatchment 32.1S: 32.1S

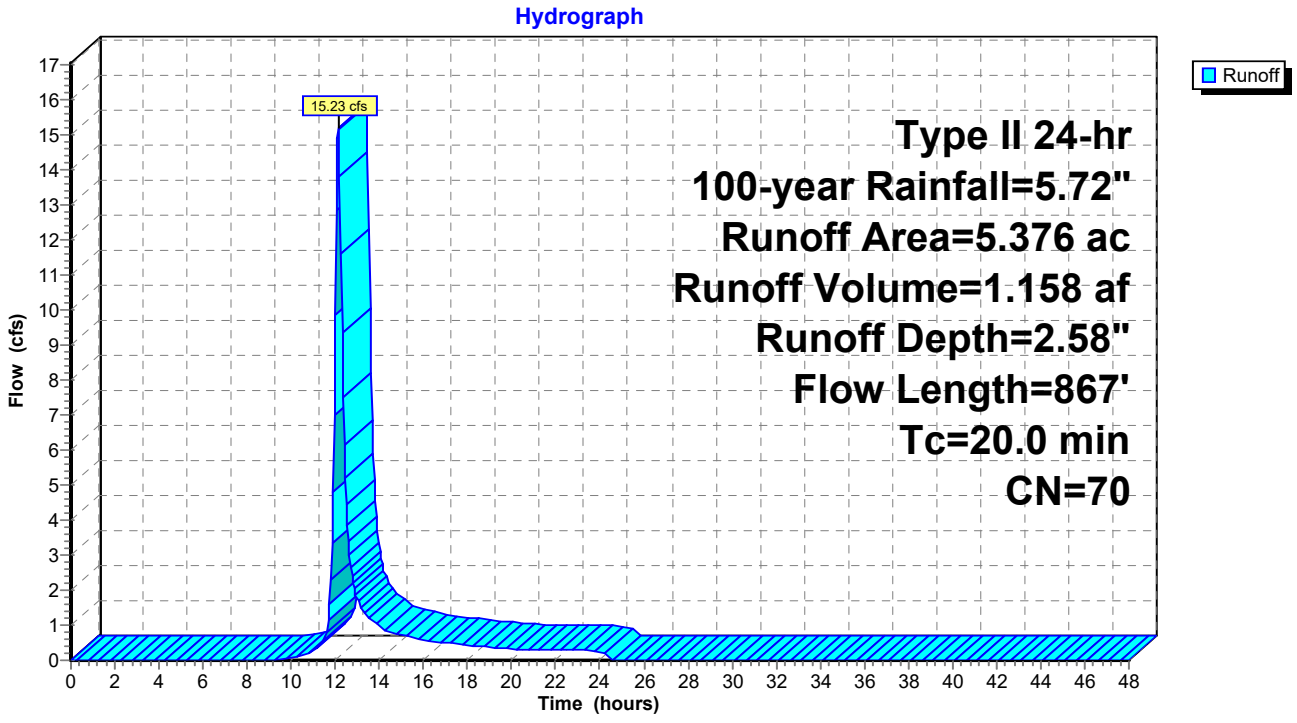
Runoff = 15.23 cfs @ 12.13 hrs, Volume= 1.158 af, Depth= 2.58"
Routed to Pond 32.1P : 32.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
*	0.166	96	Gravel
	0.888	58	Meadow, non-grazed, HSG B
	4.322	71	Meadow, non-grazed, HSG C
	5.376	70	Weighted Average
	5.376		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0450	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
12.0	767	0.0230	1.06		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.0	867	Total			

Subcatchment 32.1S: 32.1S



Summary for Subcatchment 32S: Sub 32

[47] Hint: Peak is 1294% of capacity of segment #7

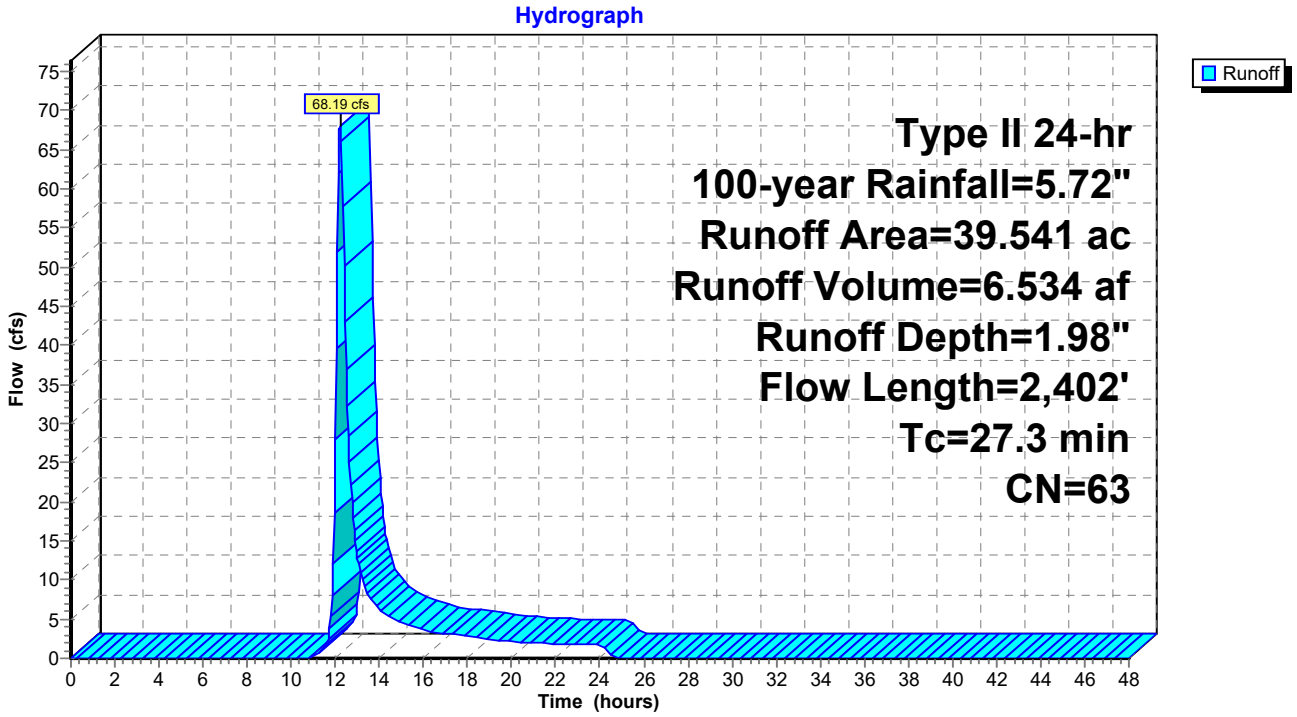
Runoff = 68.19 cfs @ 12.23 hrs, Volume= 6.534 af, Depth= 1.98"
Routed to Link SP34 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.124	48	Brush, Good, HSG B
25.962	58	Meadow, non-grazed, HSG B
4.042	71	Meadow, non-grazed, HSG C
2.796	98	Water Surface, HSG D
5.751	55	Woods, Good, HSG B
0.866	96	Gravel surface, HSG D
39.541	63	Weighted Average
36.745		92.93% Pervious Area
2.796		7.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0280	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.6	160	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.6	495	0.1050	2.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.5	74	0.0270	0.82		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	99	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
6.5	550	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.5	924	0.0910	10.13	5.27	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.20' Z= 3.0 '/' Top.W=3.20' n= 0.013 Corrugated PE, smooth interior
27.3	2,402	Total			

Subcatchment 32S: Sub 32



Summary for Subcatchment 33.1S: 33.1S

[47] Hint: Peak is 1364% of capacity of segment #3

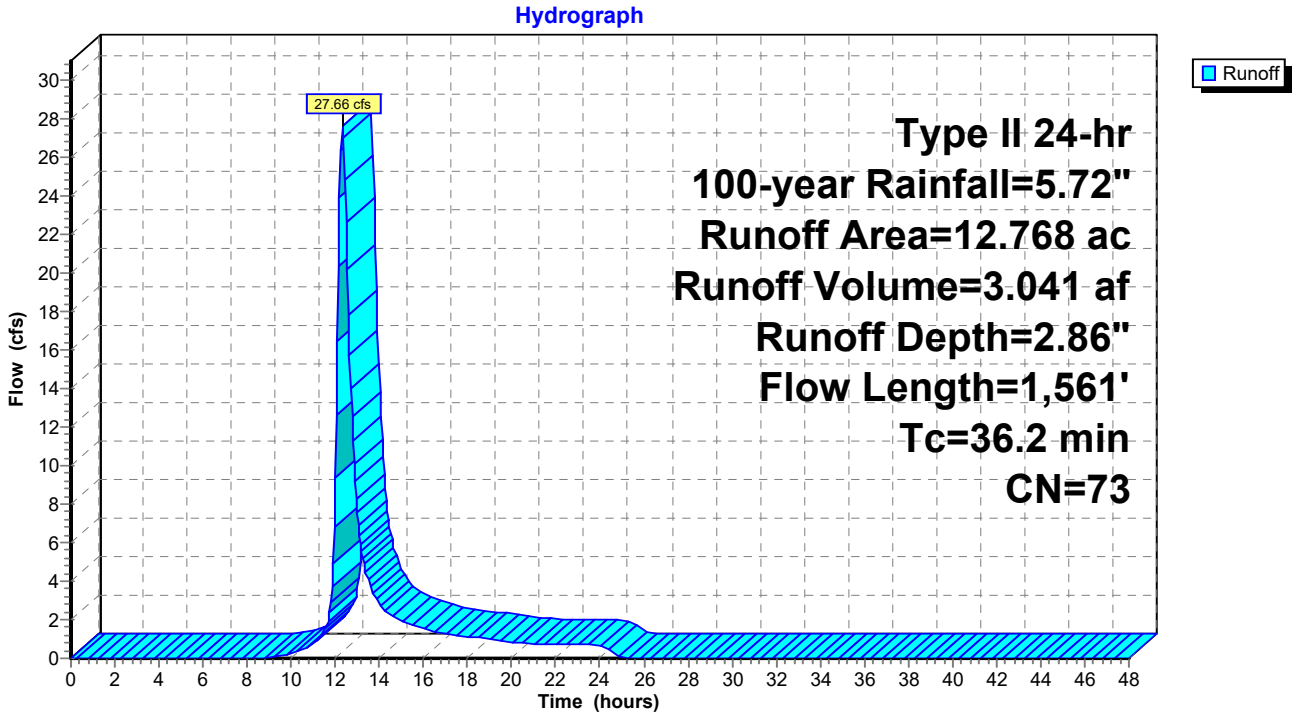
Runoff = 27.66 cfs @ 12.33 hrs, Volume= 3.041 af, Depth= 2.86"
Routed to Pond 33.1P : 33.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
*	0.536	96	Gravel
	0.787	58	Meadow, non-grazed, HSG B
	2.948	78	Meadow, non-grazed, HSG D
*	0.180	98	Impervious
	8.285	71	Meadow, non-grazed, HSG C
	0.032	48	Brush, Good, HSG B
	12.768	73	Weighted Average
	12.588		98.59% Pervious Area
	0.180		1.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0090	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
15.9	669	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	638	0.0150	4.23	2.03	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.20' Z= 2.0 '/' Top.W=2.80' n= 0.013 Corrugated PE, smooth interior
2.5	154	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
36.2	1,561	Total			

Subcatchment 33.1S: 33.1S



Summary for Subcatchment 33S: Sub 33

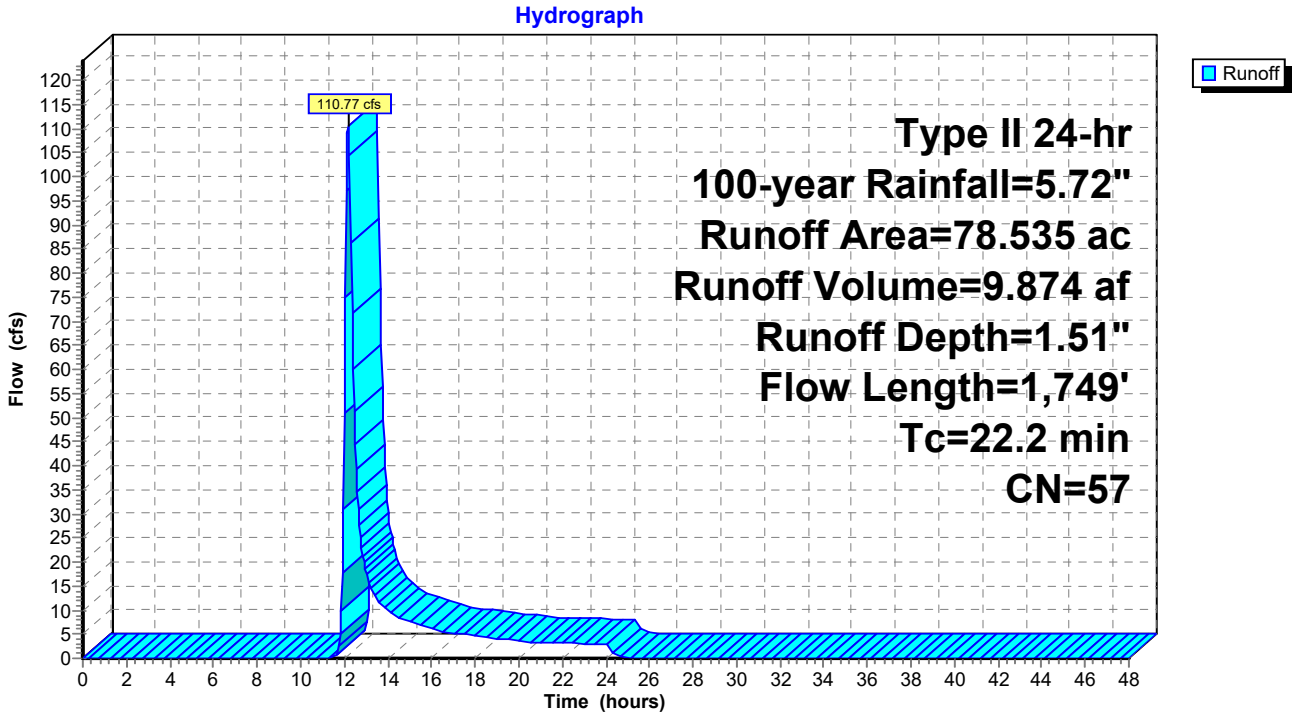
Runoff = 110.77 cfs @ 12.17 hrs, Volume= 9.874 af, Depth= 1.51"
Routed to Link SP34 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.383	48	Brush, Good, HSG B
0.083	96	Gravel surface, HSG D
0.438	98	Unconnected roofs, HSG D
45.013	58	Meadow, non-grazed, HSG B
0.353	71	Meadow, non-grazed, HSG C
0.171	78	Meadow, non-grazed, HSG D
3.827	61	>75% Grass cover, Good, HSG B
27.985	55	Woods, Good, HSG B
0.282	70	Woods, Good, HSG C
78.535	57	Weighted Average
78.097		99.44% Pervious Area
0.438		0.56% Impervious Area
0.438		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0350	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.8	780	0.1010	2.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	531	0.1059	2.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.6	338	0.1005	1.59		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.2	1,749	Total			

Subcatchment 33S: Sub 33



Summary for Subcatchment 34S: Sub 34

[47] Hint: Peak is 1258% of capacity of segment #3

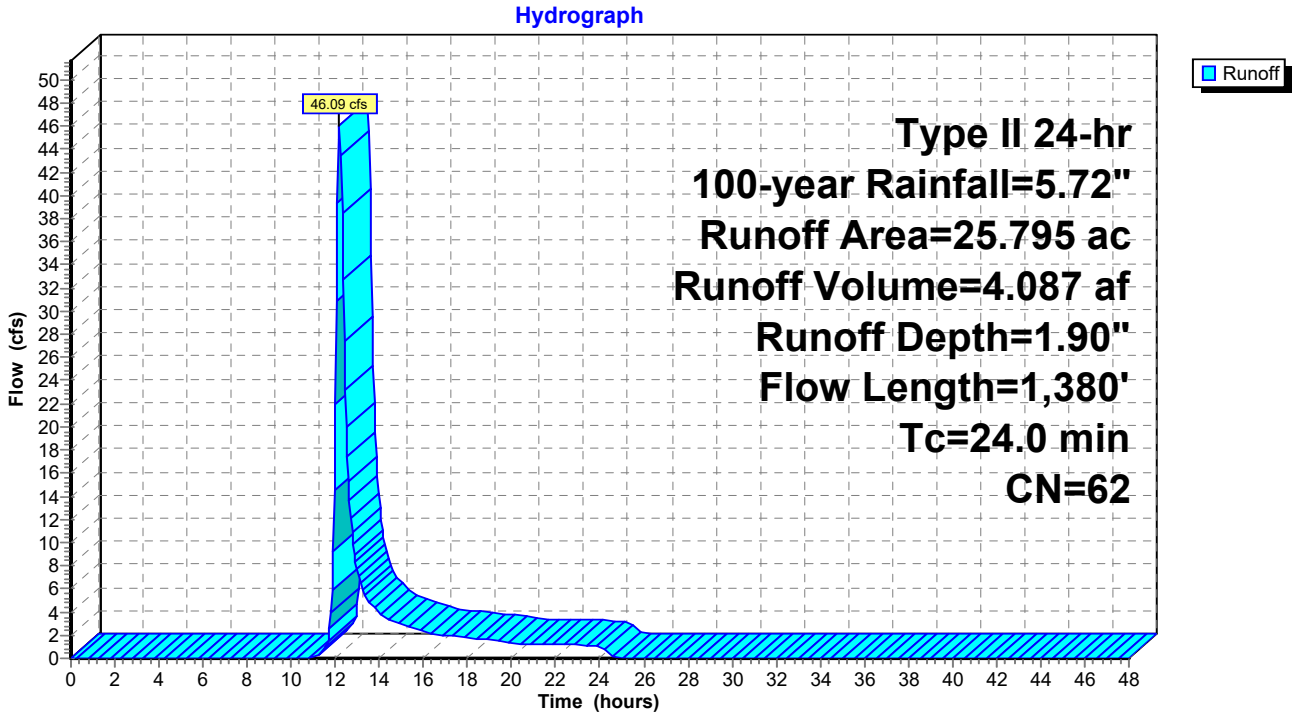
Runoff = 46.09 cfs @ 12.19 hrs, Volume= 4.087 af, Depth= 1.90"
Routed to Pond 34P : VAN EPPS RD CULVERT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.189	48	Brush, Good, HSG B
0.572	96	Gravel surface, HSG D
0.299	98	Unconnected roofs, HSG D
16.306	58	Meadow, non-grazed, HSG B
3.458	71	Meadow, non-grazed, HSG C
3.128	61	>75% Grass cover, Good, HSG B
1.486	74	>75% Grass cover, Good, HSG C
0.357	55	Woods, Good, HSG B
25.795	62	Weighted Average
25.496		98.84% Pervious Area
0.299		1.16% Impervious Area
0.299		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	100	0.0675	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
15.5	914	0.0198	0.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	42	0.0119	2.99	3.66	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.025 Corrugated metal
1.5	324	0.0552	3.52		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
24.0	1,380	Total			

Subcatchment 34S: Sub 34



Summary for Subcatchment 35S: Sub 35

[47] Hint: Peak is 1010% of capacity of segment #6

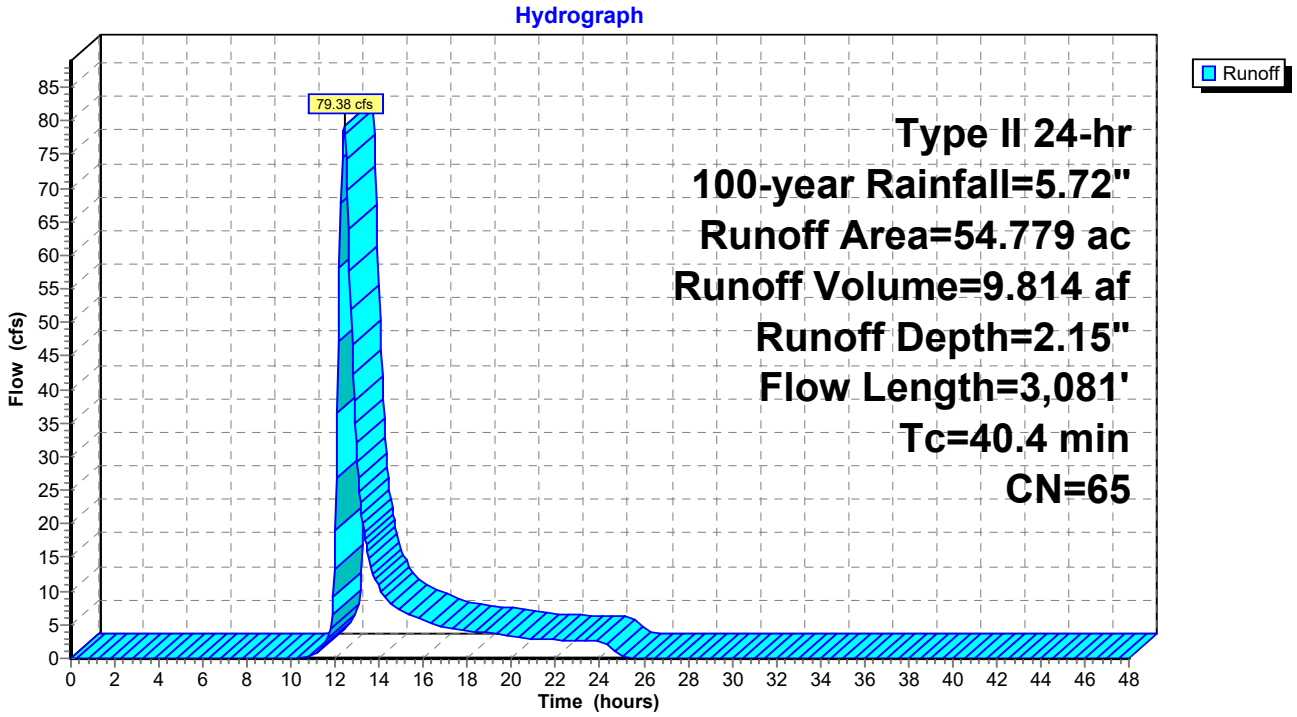
Runoff = 79.38 cfs @ 12.39 hrs, Volume= 9.814 af, Depth= 2.15"
Routed to Link SP35 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.105	48	Brush, Good, HSG B
0.087	65	Brush, Good, HSG C
1.101	98	Unconnected roofs, HSG D
24.009	58	Meadow, non-grazed, HSG B
23.901	71	Meadow, non-grazed, HSG C
0.319	61	>75% Grass cover, Good, HSG B
1.272	74	>75% Grass cover, Good, HSG C
1.962	55	Woods, Good, HSG B
1.488	70	Woods, Good, HSG C
0.535	96	Gravel surface, HSG D
54.779	65	Weighted Average
53.678		97.99% Pervious Area
1.101		2.01% Impervious Area
1.101		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.0440	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.6	393	0.0204	1.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.3	1,170	0.0510	1.58		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.3	272	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.1	435	0.0410	1.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	711	0.1030	3.93	7.86	**Parabolic Channel,** W=3.00' D=1.00' Area=2.0 sf Perim=3.7' n= 0.080 Earth, long dense weeds
40.4	3,081	Total			

Subcatchment 35S: Sub 35



Summary for Subcatchment 36S: Sub 36

[47] Hint: Peak is 1508% of capacity of segment #3

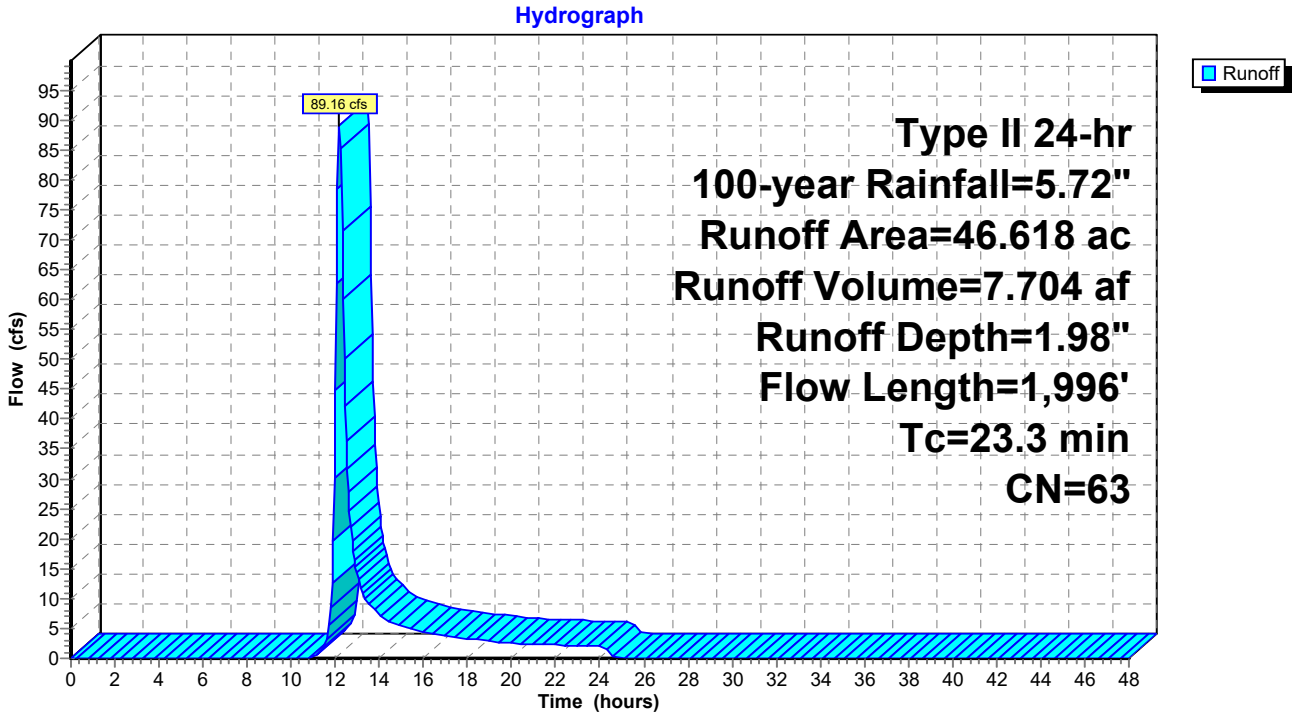
Runoff = 89.16 cfs @ 12.18 hrs, Volume= 7.704 af, Depth= 1.98"
Routed to Link SP36 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.319	96	Gravel surface, HSG D
3.277	58	Meadow, non-grazed, HSG B
21.346	71	Meadow, non-grazed, HSG C
21.676	55	Woods, Good, HSG B
46.618	63	Weighted Average
46.618		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.0550	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.7	1,036	0.0442	1.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.2	860	0.1400	3.38	5.91	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 3.0 '/' Top.W=5.00' n= 0.080 Earth, long dense weeds
23.3	1,996	Total			

Subcatchment 36S: Sub 36



Summary for Subcatchment 37S: Sub 37

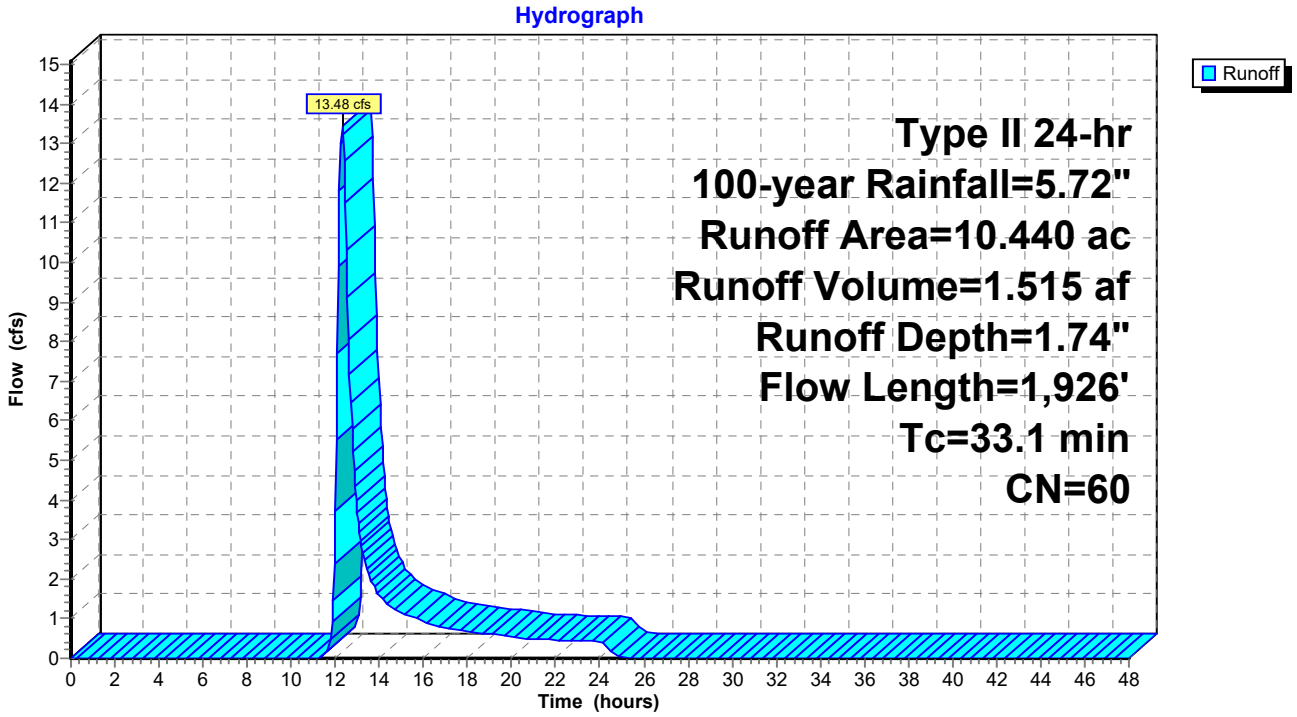
Runoff = 13.48 cfs @ 12.31 hrs, Volume= 1.515 af, Depth= 1.74"
Routed to Link SP37 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	8.161	58	Meadow, non-grazed, HSG B
	1.673	55	Woods, Good, HSG B
*	0.606	98	Impervious
	10.440	60	Weighted Average
	9.834		94.20% Pervious Area
	0.606		5.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0050	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.6	1,005	0.0507	1.58		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	90	0.0889	1.49		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.2	731	0.0570	5.59	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=0.50' Z= 3.0 '/' Top.W=9.00' n= 0.035 Earth, dense weeds
33.1	1,926	Total			

Subcatchment 37S: Sub 37



Summary for Subcatchment 38S: Sub 38

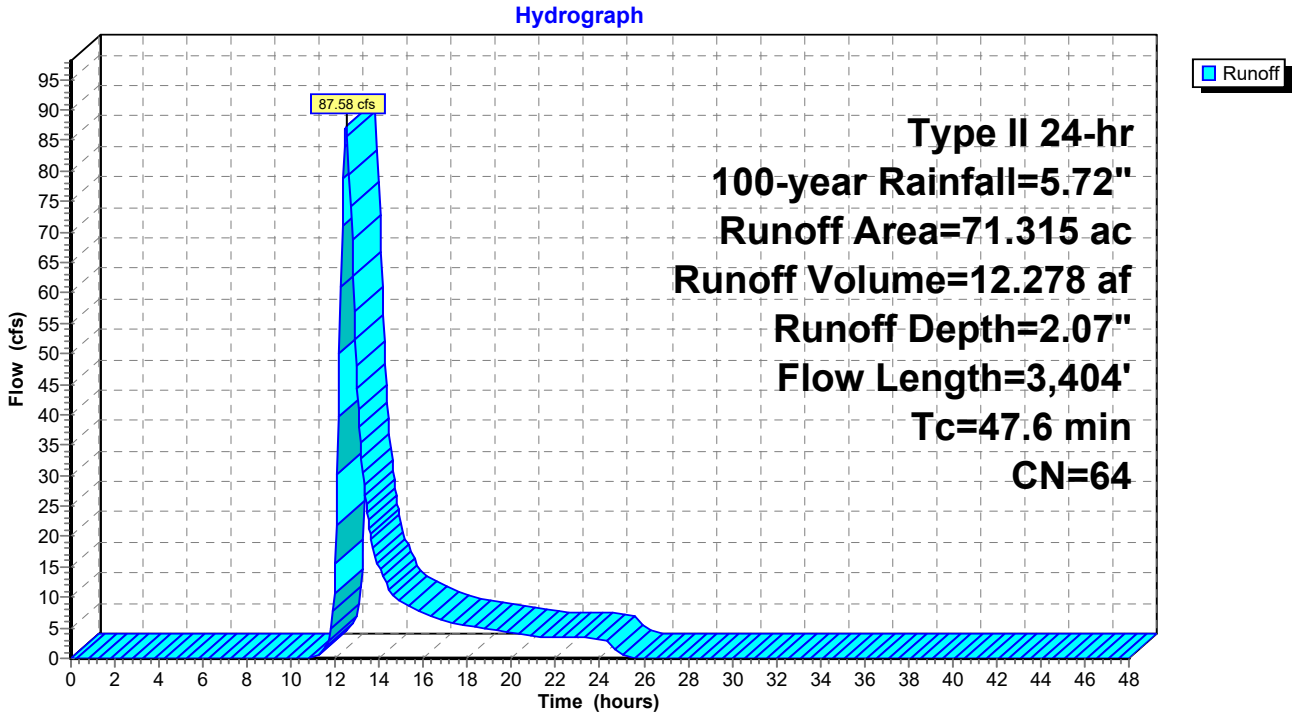
Runoff = 87.58 cfs @ 12.49 hrs, Volume= 12.278 af, Depth= 2.07"
Routed to Link SP38 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.437	96	Gravel surface, HSG D
0.789	98	Unconnected roofs, HSG D
29.694	58	Meadow, non-grazed, HSG B
36.187	71	Meadow, non-grazed, HSG C
3.907	30	Woods, Good, HSG A
0.301	55	Woods, Good, HSG B
71.315	64	Weighted Average
70.526		98.89% Pervious Area
0.789		1.11% Impervious Area
0.789		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.0500	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.9	739	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.6	753	0.0744	1.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.4	1,812	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
47.6	3,404	Total			

Subcatchment 38S: Sub 38



Summary for Subcatchment 39S: Sub 39

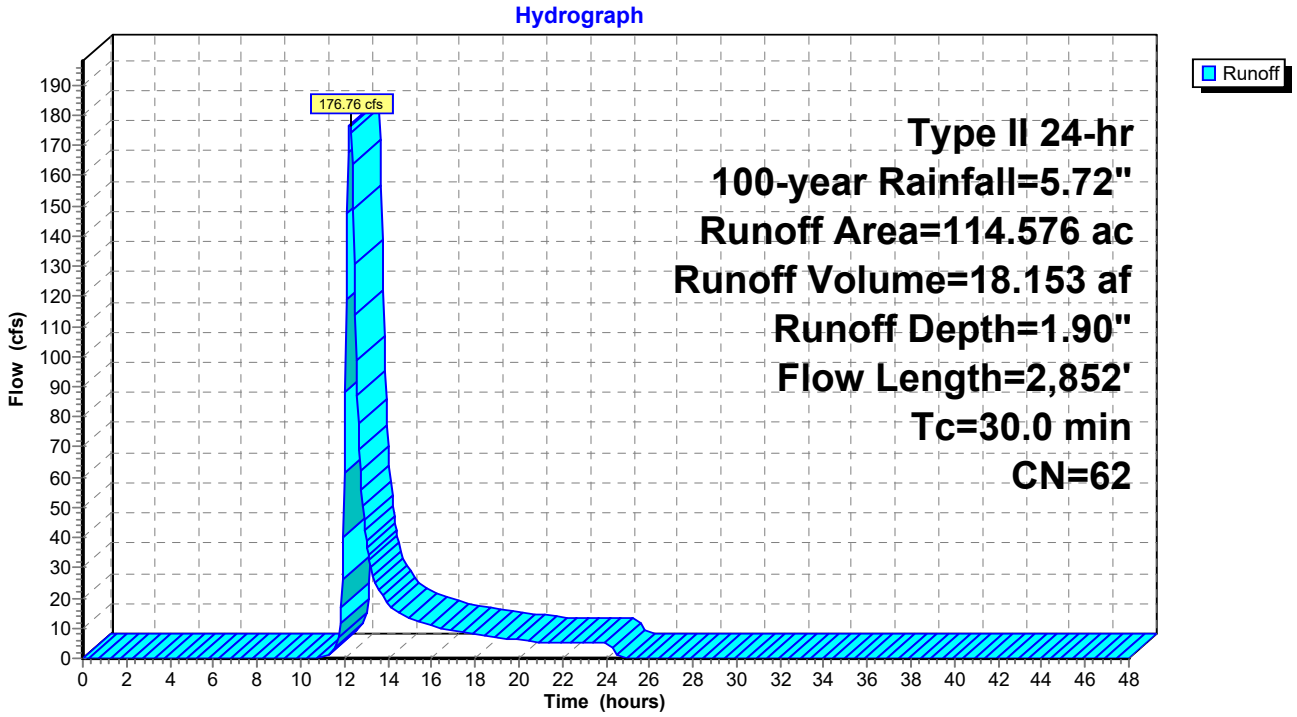
Runoff = 176.76 cfs @ 12.27 hrs, Volume= 18.153 af, Depth= 1.90"
Routed to Link SP39 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
2.544	96	Gravel surface, HSG D
0.425	98	Unconnected roofs, HSG D
71.899	58	Meadow, non-grazed, HSG B
22.397	71	Meadow, non-grazed, HSG C
2.604	78	Meadow, non-grazed, HSG D
0.132	98	Water Surface, HSG D
14.268	55	Woods, Good, HSG B
0.228	70	Woods, Good, HSG C
0.079	77	Woods, Good, HSG D
114.576	62	Weighted Average
114.019		99.51% Pervious Area
0.557		0.49% Impervious Area
0.425		76.30% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0600	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
17.7	2,151	0.0840	2.03		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.2	601	0.1490	1.93		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
30.0	2,852	Total			

Subcatchment 39S: Sub 39



Summary for Subcatchment 40S: Sub 40

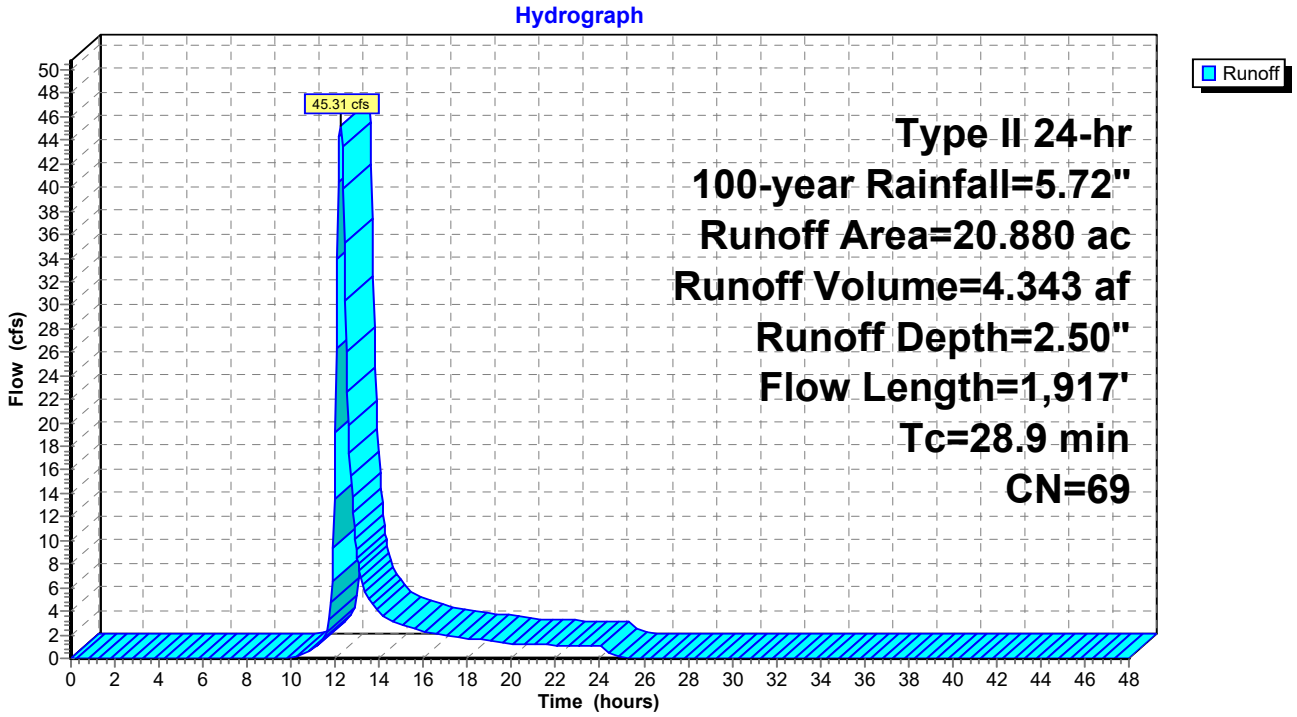
Runoff = 45.31 cfs @ 12.24 hrs, Volume= 4.343 af, Depth= 2.50"
Routed to Reach 39R :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.016	65	Brush, Good, HSG C
0.235	96	Gravel surface, HSG D
0.018	98	Unconnected roofs, HSG D
6.944	58	Meadow, non-grazed, HSG B
10.584	71	Meadow, non-grazed, HSG C
0.095	78	Meadow, non-grazed, HSG D
0.089	61	>75% Grass cover, Good, HSG B
1.640	98	Water Surface, HSG D
0.643	55	Woods, Good, HSG B
0.616	70	Woods, Good, HSG C
20.880	69	Weighted Average
19.222		92.06% Pervious Area
1.658		7.94% Impervious Area
0.018		1.09% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	100	0.0575	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.6	358	0.1089	2.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	38	0.1118	1.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.8	1,118	0.0733	1.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.8	303	0.0132	0.57		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.9	1,917	Total			

Subcatchment 40S: Sub 40



Summary for Subcatchment 41S: Sub 41

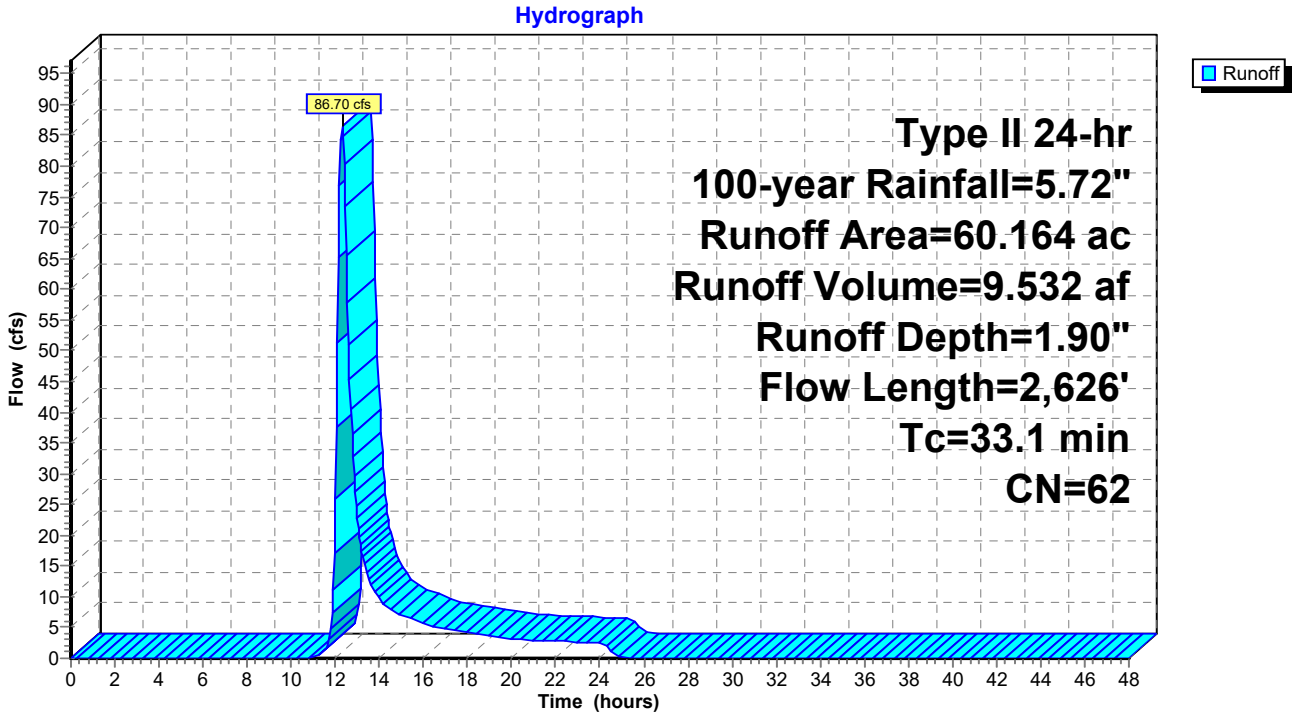
Runoff = 86.70 cfs @ 12.30 hrs, Volume= 9.532 af, Depth= 1.90"
Routed to Link SP41 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
21.630	58	Meadow, non-grazed, HSG B
8.822	71	Meadow, non-grazed, HSG C
2.302	78	Meadow, non-grazed, HSG D
17.906	55	Woods, Good, HSG B
9.226	70	Woods, Good, HSG C
0.278	96	Gravel surface, HSG D
60.164	62	Weighted Average
60.164		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.0	585	0.0765	1.94		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.8	652	0.0395	1.39		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.9	1,289	0.0436	3.13		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
33.1	2,626	Total			

Subcatchment 41S: Sub 41



Summary for Subcatchment 42.1S: 42.1P

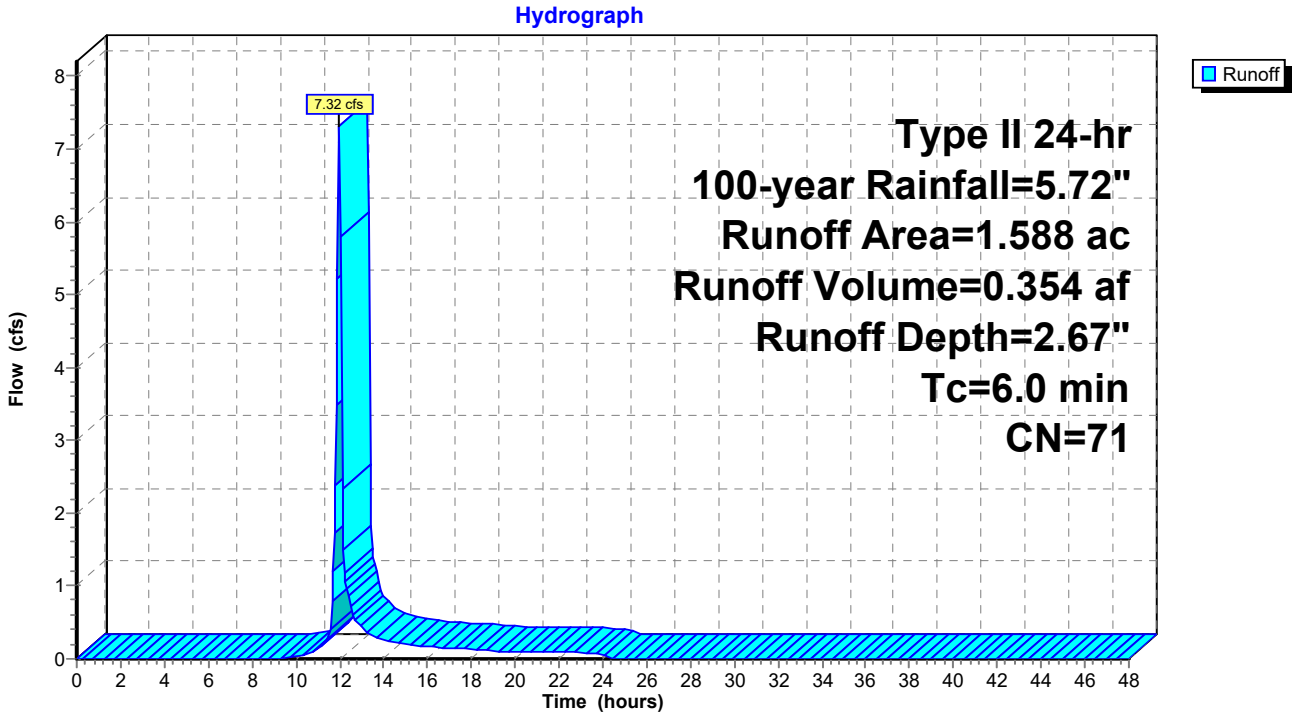
Runoff = 7.32 cfs @ 11.97 hrs, Volume= 0.354 af, Depth= 2.67"
Routed to Pond 42P : 42P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
1.588	71	Meadow, non-grazed, HSG C
1.588		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 42.1S: 42.1P



Summary for Subcatchment 42.2S: 42.2P

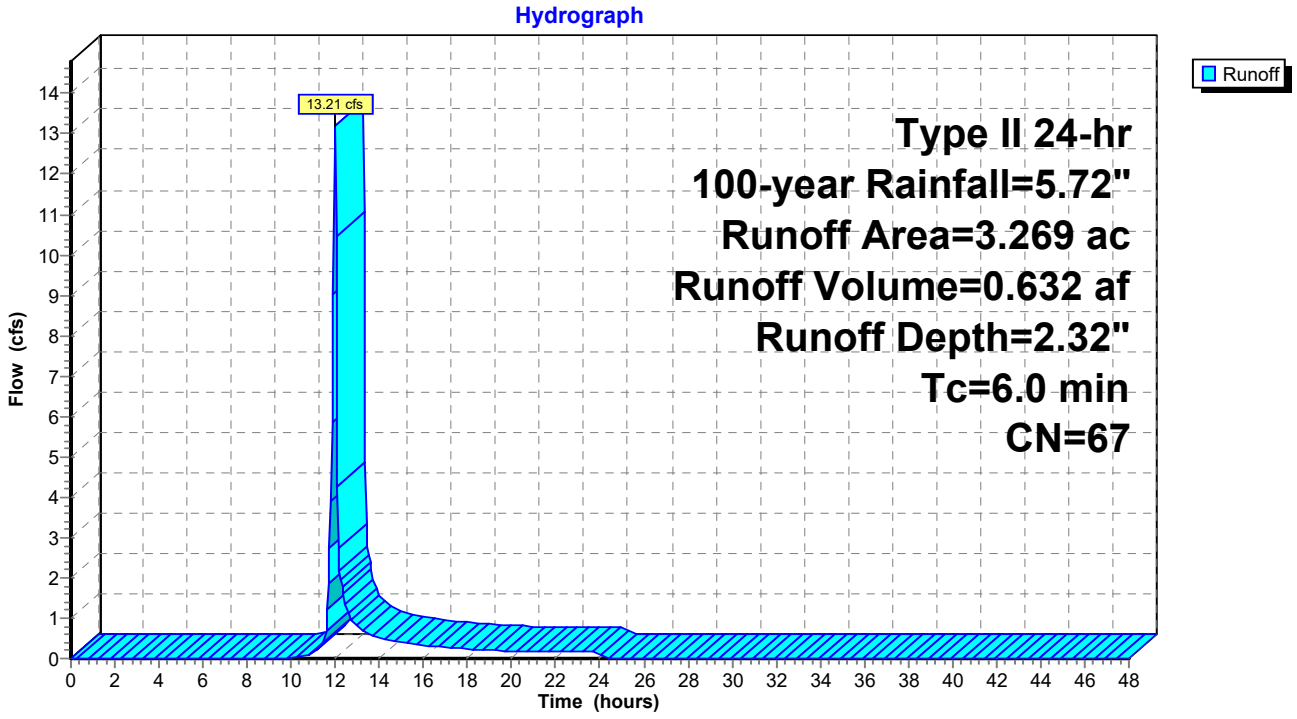
Runoff = 13.21 cfs @ 11.98 hrs, Volume= 0.632 af, Depth= 2.32"
Routed to Pond 42P : 42P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.922	58	Meadow, non-grazed, HSG B
2.347	71	Meadow, non-grazed, HSG C
3.269	67	Weighted Average
3.269		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 42.2S: 42.2P



Summary for Subcatchment 42S: Sub 42

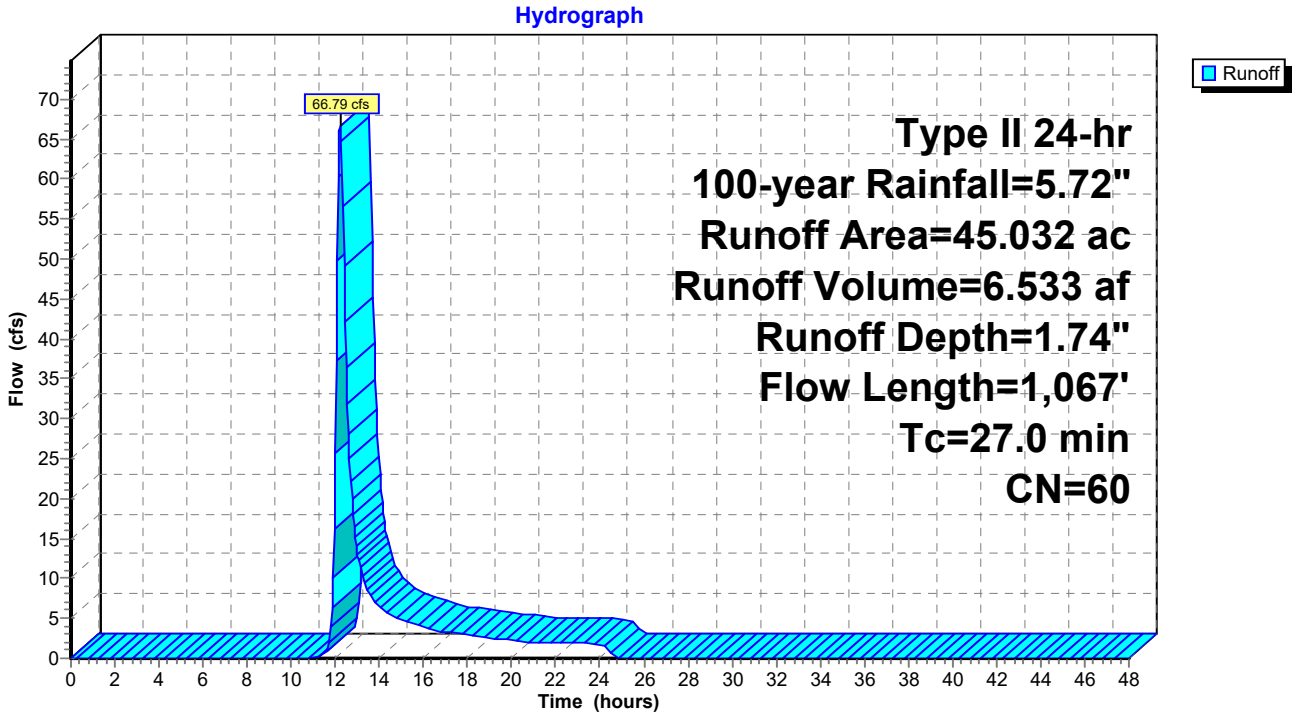
Runoff = 66.79 cfs @ 12.23 hrs, Volume= 6.533 af, Depth= 1.74"
Routed to Link SP42 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
8.572	58	Meadow, non-grazed, HSG B
11.283	71	Meadow, non-grazed, HSG C
23.485	55	Woods, Good, HSG B
1.193	70	Woods, Good, HSG C
0.499	96	Gravel surface, HSG D
45.032	60	Weighted Average
45.032		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.0	140	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	252	0.0080	0.63		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.4	103	0.0290	1.19		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	472	0.2000	2.24		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
27.0	1,067	Total			

Subcatchment 42S: Sub 42



Summary for Subcatchment 48S: Sub 48

[47] Hint: Peak is 730% of capacity of segment #3

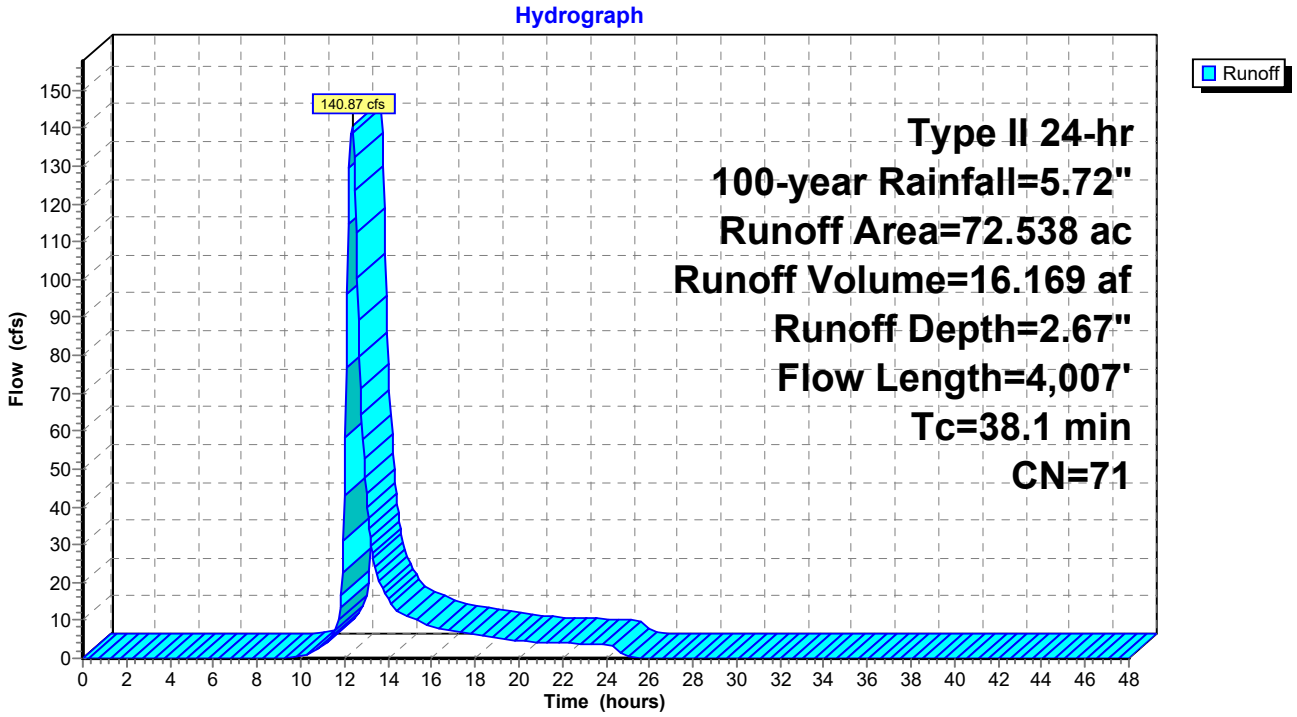
Runoff = 140.87 cfs @ 12.35 hrs, Volume= 16.169 af, Depth= 2.67"
Routed to Link SP48 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	3.557	48	Brush, Good, HSG B
	14.091	65	Brush, Good, HSG C
	7.459	73	Brush, Good, HSG D
*	0.649	96	Gravel surface
*	1.258	98	Impervious Roof and Pavement
	2.103	58	Meadow, non-grazed, HSG B
	26.750	71	Meadow, non-grazed, HSG C
	13.236	78	Meadow, non-grazed, HSG D
	0.333	61	>75% Grass cover, Good, HSG B
	0.615	74	>75% Grass cover, Good, HSG C
	0.563	80	>75% Grass cover, Good, HSG D
	0.543	98	Water Surface, HSG D
	0.355	55	Woods, Good, HSG B
	0.418	70	Woods, Good, HSG C
	0.608	77	Woods, Good, HSG D
	72.538	71	Weighted Average
	70.737		97.52% Pervious Area
	1.801		2.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.0625	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
22.2	1,935	0.0430	1.45		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	1,972	0.0230	3.68	19.31	**Trap/Vee/Rect Channel Flow,** Bot.W=9.00' D=0.50' Z= 3.0 '/' Top.W=12.00' n= 0.035 Earth, dense weeds
38.1	4,007	Total			

Subcatchment 48S: Sub 48



Summary for Subcatchment 49.1S: Sub 49.1

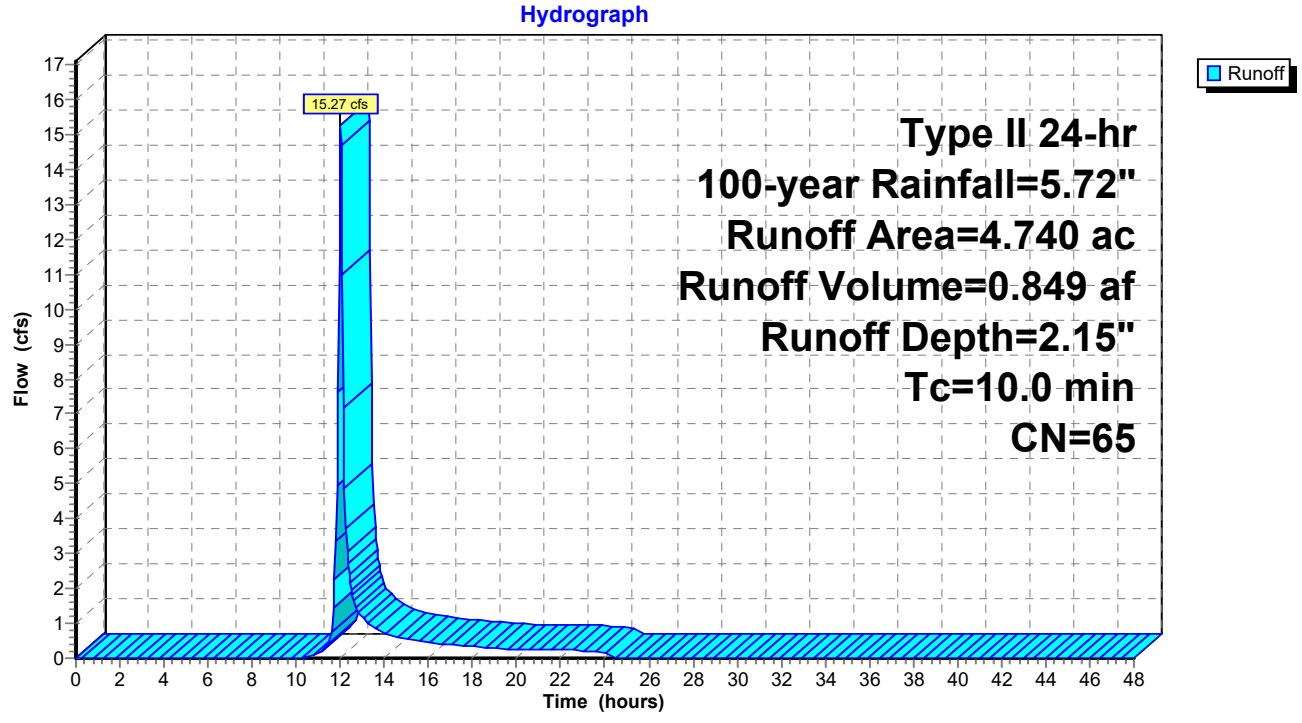
Runoff = 15.27 cfs @ 12.02 hrs, Volume= 0.849 af, Depth= 2.15"
Routed to Pond 49.1P : 49.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	0.971	71	Meadow, non-grazed, HSG C
	1.992	58	Meadow, non-grazed, HSG B
*	0.322	98	Impervious
	0.157	70	Woods, Good, HSG C
	0.095	65	Brush, Good, HSG C
	0.171	48	Brush, Good, HSG B
	0.853	61	>75% Grass cover, Good, HSG B
	0.079	74	>75% Grass cover, Good, HSG C
*	0.100	96	Gravel
	4.740	65	Weighted Average
	4.418		93.21% Pervious Area
	0.322		6.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 49.1S: Sub 49.1



Summary for Subcatchment 49.2S: 49.2S

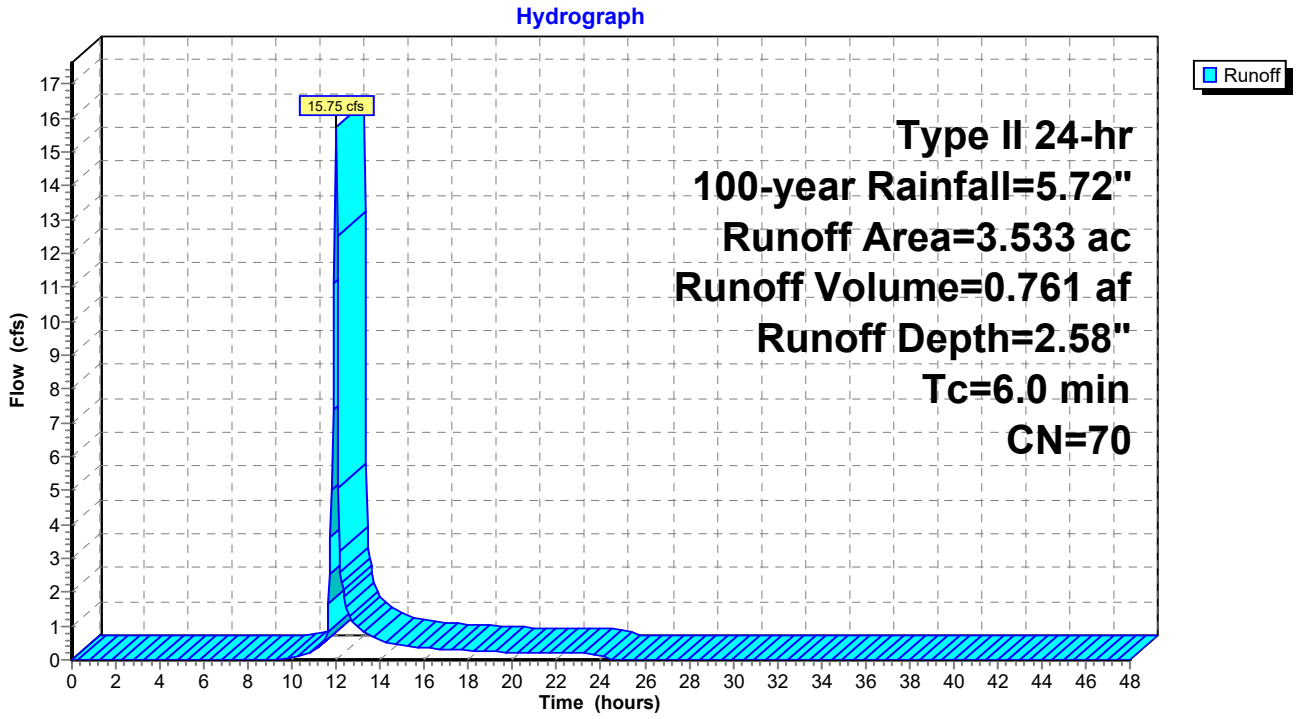
Runoff = 15.75 cfs @ 11.97 hrs, Volume= 0.761 af, Depth= 2.58"
Routed to Pond 49.2P : 49.2S

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	0.083	61	>75% Grass cover, Good, HSG B
	0.181	58	Meadow, non-grazed, HSG B
	3.264	71	Meadow, non-grazed, HSG C
*	0.005	98	Impervious roof
	3.533	70	Weighted Average
	3.528		99.86% Pervious Area
	0.005		0.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 49.2S: 49.2S



Summary for Subcatchment 49S: Sub 49

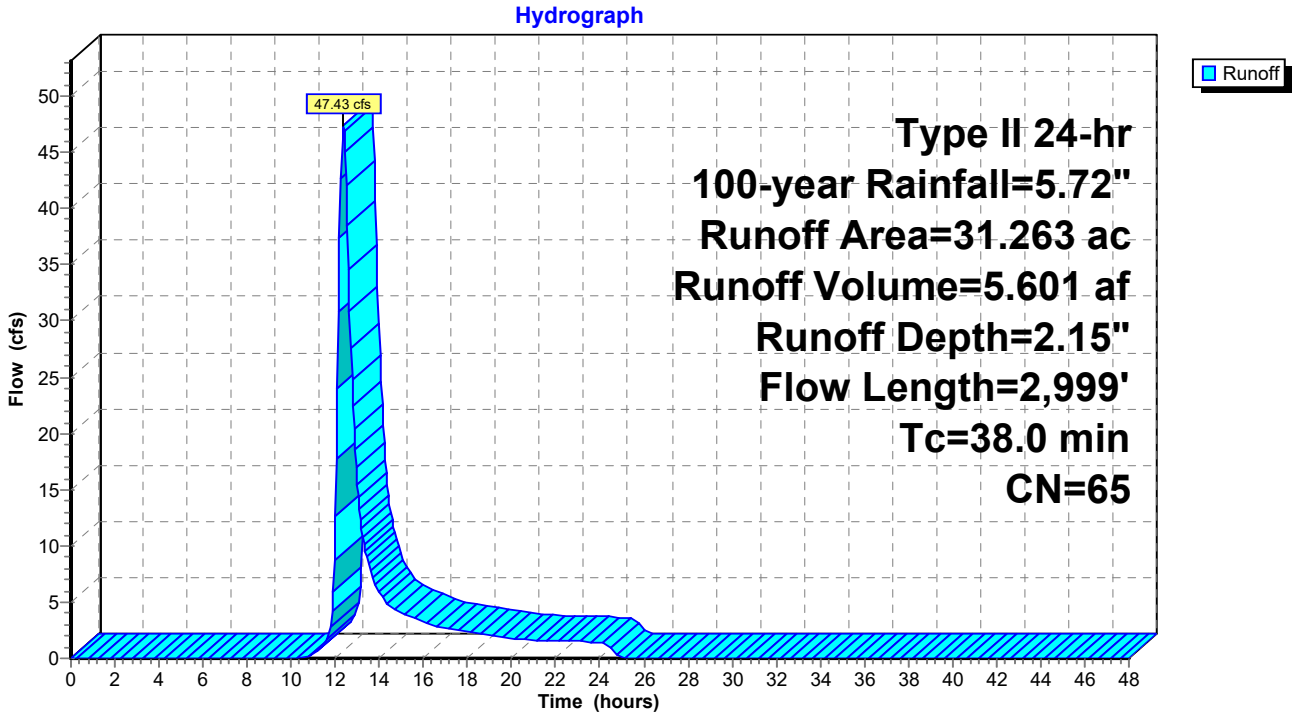
Runoff = 47.43 cfs @ 12.36 hrs, Volume= 5.601 af, Depth= 2.15"
Routed to Reach 42R : S-NSD-16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	1.236	48	Brush, Good, HSG B
	1.046	65	Brush, Good, HSG C
	0.025	73	Brush, Good, HSG D
	0.628	96	Gravel surface, HSG D
*	0.165	98	Impervious
	13.632	58	Meadow, non-grazed, HSG B
	9.560	71	Meadow, non-grazed, HSG C
	2.736	78	Meadow, non-grazed, HSG D
	0.807	61	>75% Grass cover, Good, HSG B
	0.303	74	>75% Grass cover, Good, HSG C
	0.029	98	Water Surface, HSG D
	0.093	55	Woods, Good, HSG B
	0.788	70	Woods, Good, HSG C
	0.215	77	Woods, Good, HSG D
	31.263	65	Weighted Average
	31.069		99.38% Pervious Area
	0.194		0.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0610	0.23		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.5	240	0.1520	2.73		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	534	0.1367	2.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	168	0.0506	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.2	561	0.0267	1.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.0	1,396	0.0434	1.46		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
38.0	2,999	Total			

Subcatchment 49S: Sub 49



Summary for Subcatchment 50S: Sub 50

[47] Hint: Peak is 1655% of capacity of segment #4

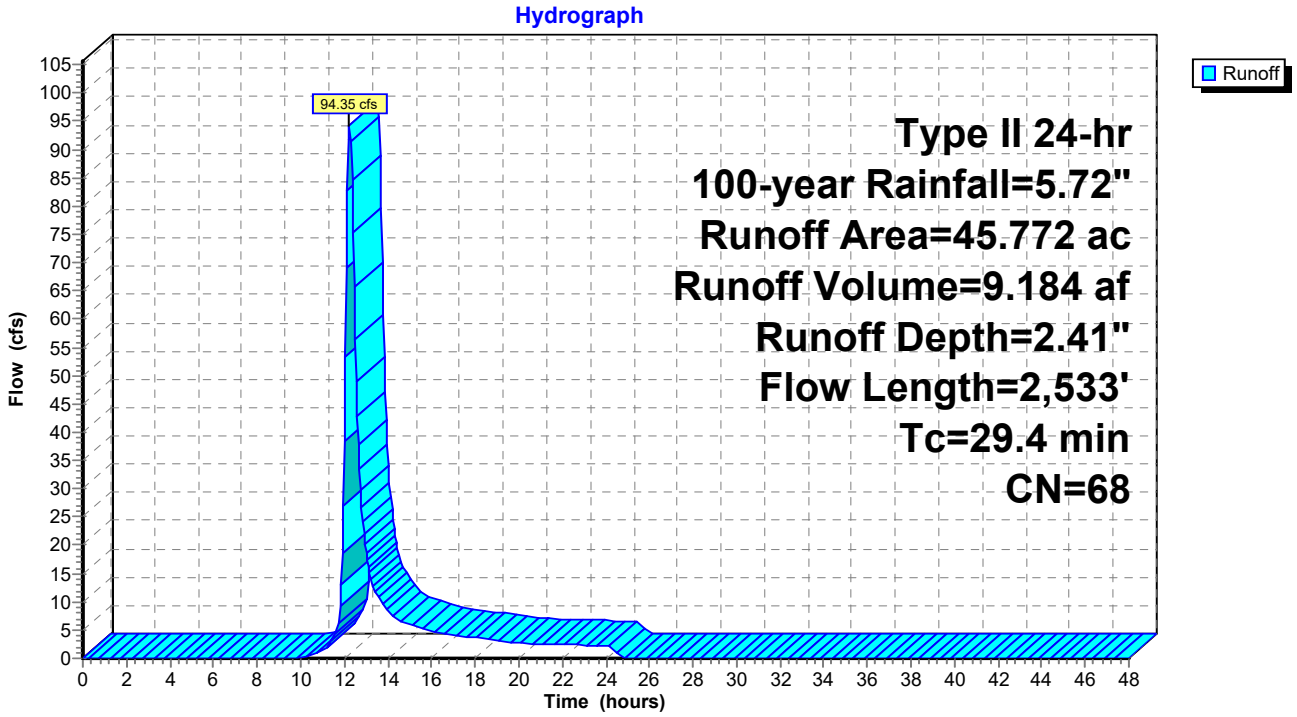
Runoff = 94.35 cfs @ 12.25 hrs, Volume= 9.184 af, Depth= 2.41"
Routed to Link SP50 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.310	48	Brush, Good, HSG B
3.453	65	Brush, Good, HSG C
0.153	73	Brush, Good, HSG D
0.163	98	Unconnected roofs, HSG D
3.338	58	Meadow, non-grazed, HSG B
23.963	71	Meadow, non-grazed, HSG C
2.608	78	Meadow, non-grazed, HSG D
0.409	98	Water Surface, HSG D
5.668	55	Woods, Good, HSG B
5.262	70	Woods, Good, HSG C
0.445	96	Gravel surface, HSG D
45.772	68	Weighted Average
45.200		98.75% Pervious Area
0.572		1.25% Impervious Area
0.163		28.50% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0350	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
8.1	911	0.0710	1.87		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.5	410	0.0330	0.91		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.9	1,112	0.0320	3.80	5.70	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
29.4	2,533	Total			

Subcatchment 50S: Sub 50



Summary for Subcatchment 51.1S: 51.1S

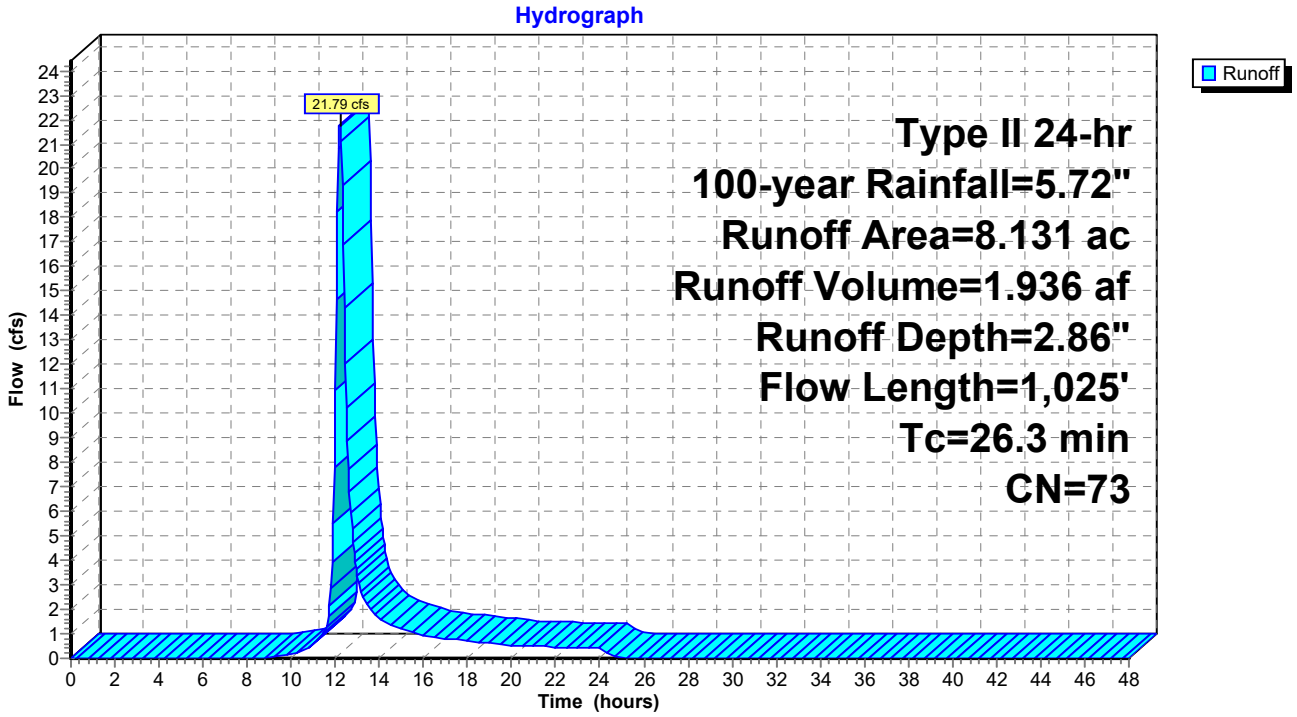
Runoff = 21.79 cfs @ 12.20 hrs, Volume= 1.936 af, Depth= 2.86"
Routed to Pond 51.1P : 51.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
5.714	71	Meadow, non-grazed, HSG C
0.046	70	Woods, Good, HSG C
0.397	74	>75% Grass cover, Good, HSG C
0.096	65	Brush, Good, HSG C
0.109	73	Brush, Good, HSG D
1.769	78	Meadow, non-grazed, HSG D
8.131	73	Weighted Average
8.131		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	100	0.0070	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
5.4	334	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	591	0.1250	2.47		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
26.3	1,025	Total			

Subcatchment 51.1S: 51.1S



Summary for Subcatchment 51S: Sub 51

[47] Hint: Peak is 840% of capacity of segment #6
[47] Hint: Peak is 840% of capacity of segment #8

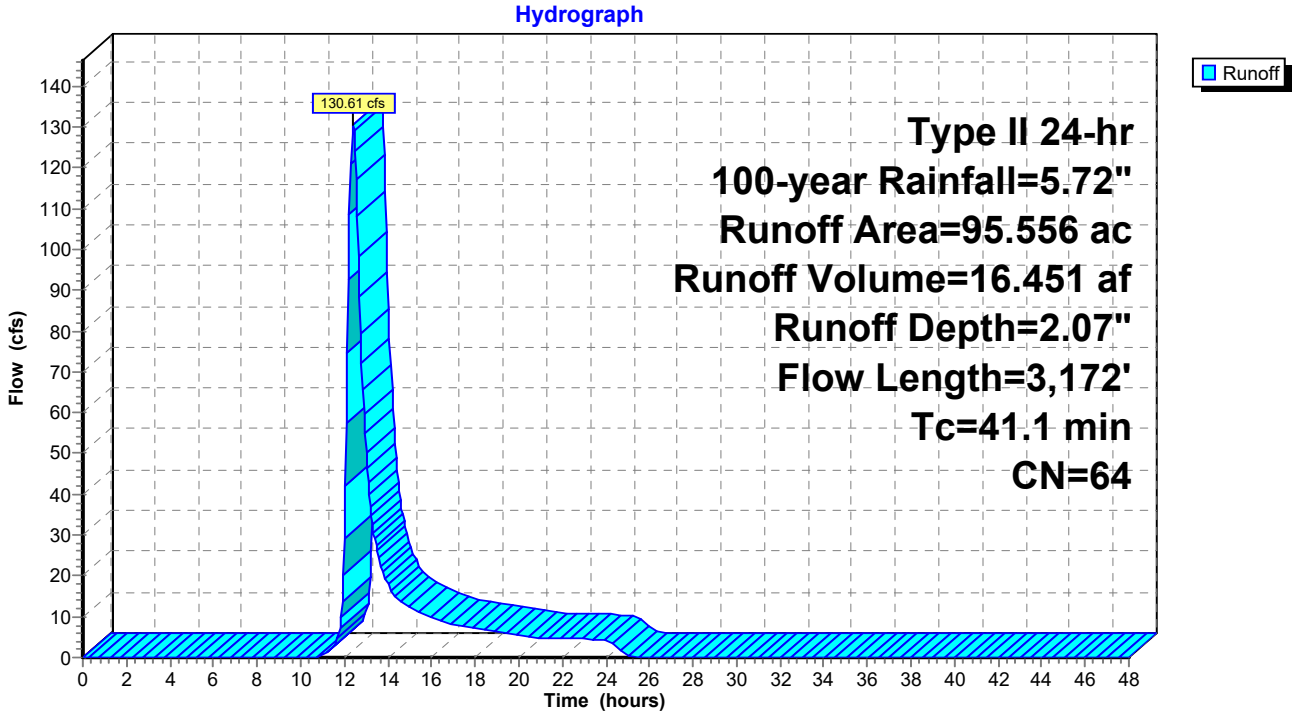
Runoff = 130.61 cfs @ 12.41 hrs, Volume= 16.451 af, Depth= 2.07"
Routed to Link SP51 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.877	48	Brush, Good, HSG B
0.779	65	Brush, Good, HSG C
0.113	73	Brush, Good, HSG D
2.071	96	Gravel surface, HSG D
0.729	98	Unconnected roofs, HSG D
48.224	58	Meadow, non-grazed, HSG B
33.849	71	Meadow, non-grazed, HSG C
0.806	78	Meadow, non-grazed, HSG D
2.719	61	>75% Grass cover, Good, HSG B
0.732	74	>75% Grass cover, Good, HSG C
1.610	55	Woods, Good, HSG B
2.912	70	Woods, Good, HSG C
0.135	77	Woods, Good, HSG D
95.556	64	Weighted Average
94.827		99.24% Pervious Area
0.729		0.76% Impervious Area
0.729		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.7	108	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.4	513	0.0210	1.01		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.3	1,142	0.0860	2.05		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.0	543	0.0460	1.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	34	0.0580	12.68	15.56	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	162	0.0250	1.11		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	34	0.0580	12.68	15.56	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
5.3	392	0.0310	1.23		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	144	0.0420	1.02		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
41.1	3,172	Total			

Subcatchment 51S: Sub 51



Summary for Subcatchment 52.1S: 52.1S

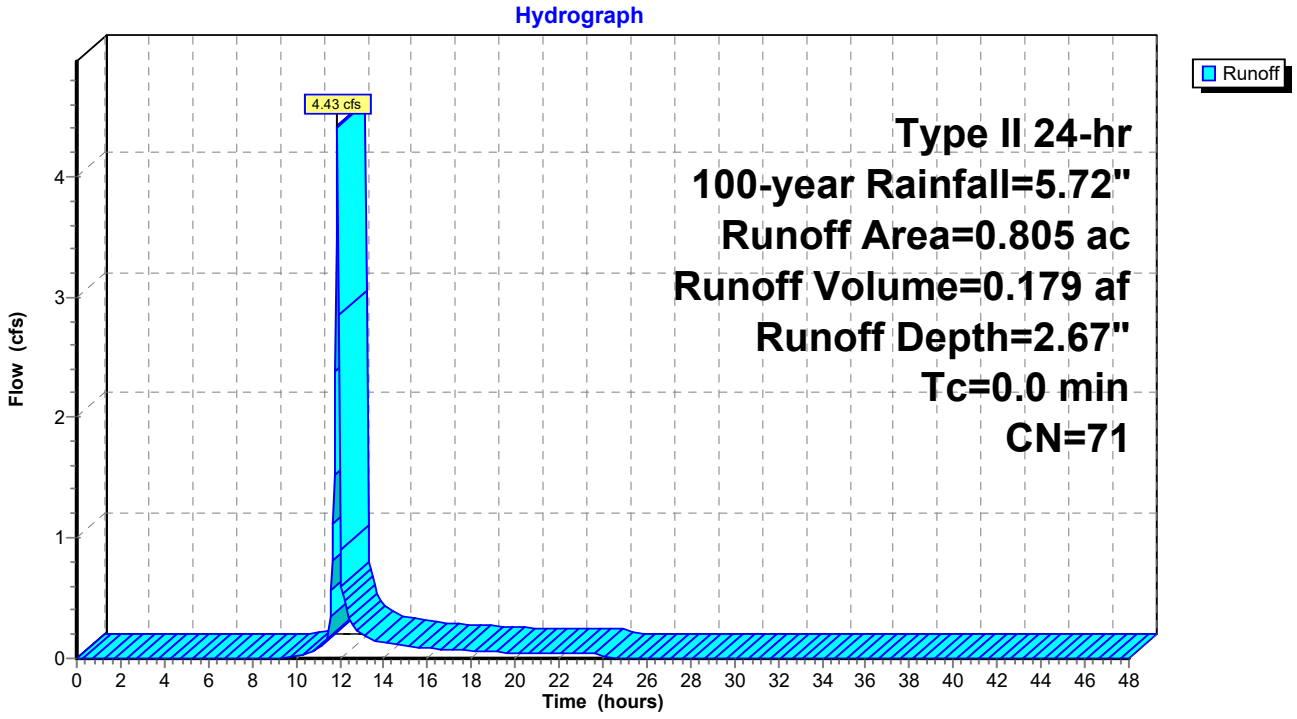
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 4.43 cfs @ 11.89 hrs, Volume= 0.179 af, Depth= 2.67"
Routed to Pond 52.1P : 52.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.805	71	Meadow, non-grazed, HSG C
0.805		100.00% Pervious Area

Subcatchment 52.1S: 52.1S



Summary for Subcatchment 52S: Sub 52

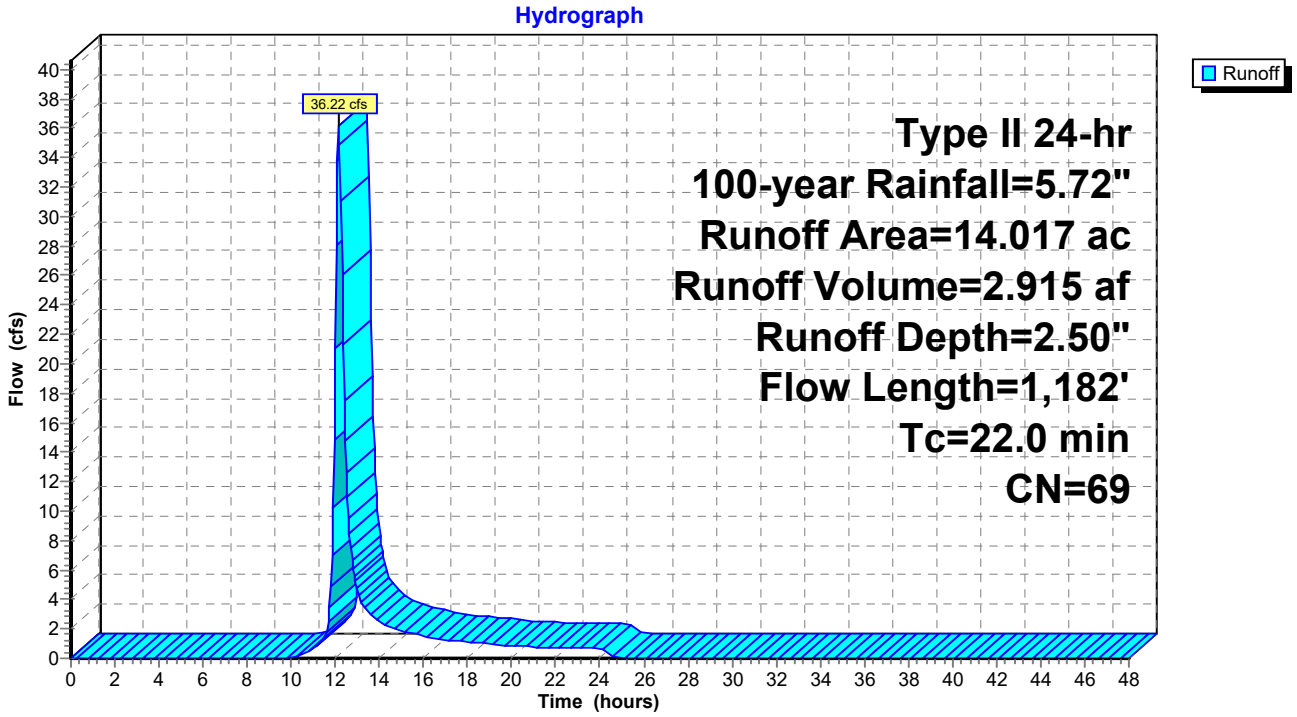
Runoff = 36.22 cfs @ 12.16 hrs, Volume= 2.915 af, Depth= 2.50"
Routed to Link SP52 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.561	48	Brush, Good, HSG B
0.166	73	Brush, Good, HSG D
1.696	58	Meadow, non-grazed, HSG B
9.328	71	Meadow, non-grazed, HSG C
0.646	78	Meadow, non-grazed, HSG D
0.413	98	Water Surface, HSG D
0.321	55	Woods, Good, HSG B
0.736	70	Woods, Good, HSG C
0.150	96	Gravel surface, HSG D
14.017	69	Weighted Average
13.604		97.05% Pervious Area
0.413		2.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
8.1	993	0.0850	2.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	89	0.0112	0.53		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.0	1,182	Total			

Subcatchment 52S: Sub 52



Summary for Subcatchment 53S: Sub 53

[47] Hint: Peak is 215% of capacity of segment #5

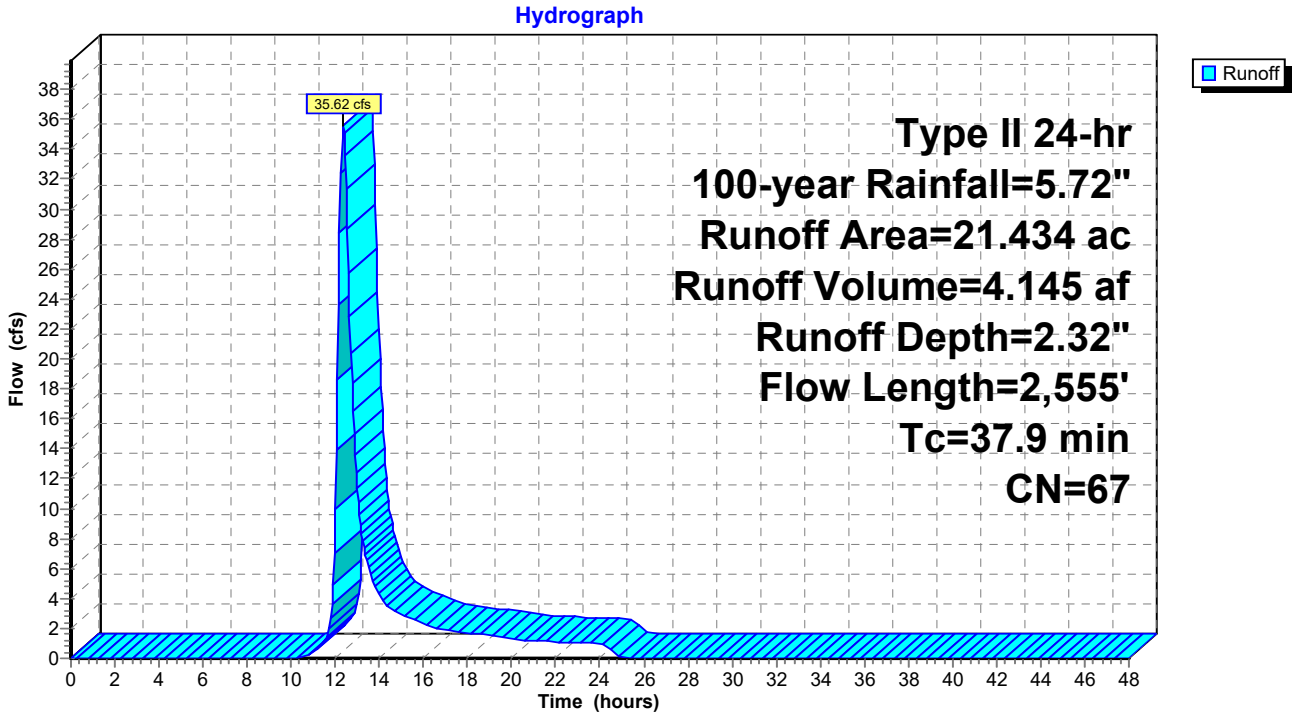
Runoff = 35.62 cfs @ 12.36 hrs, Volume= 4.145 af, Depth= 2.32"
Routed to Link SP53 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
1.579	48	Brush, Good, HSG B
0.985	65	Brush, Good, HSG C
4.027	58	Meadow, non-grazed, HSG B
13.862	71	Meadow, non-grazed, HSG C
0.386	98	Water Surface, HSG D
0.250	70	Woods, Good, HSG C
0.345	96	Gravel surface, HSG D
21.434	67	Weighted Average
21.048		98.20% Pervious Area
0.386		1.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.4	347	0.1210	2.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	151	0.1656	2.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
19.3	1,511	0.0347	1.30		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.7	446	0.2690	11.02	16.53	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.50' Z= 2.0 '/' Top.W=4.00' n= 0.035 Earth, dense weeds
37.9	2,555	Total			

Subcatchment 53S: Sub 53



Summary for Subcatchment 54S: Sub 54

[47] Hint: Peak is 1085% of capacity of segment #5

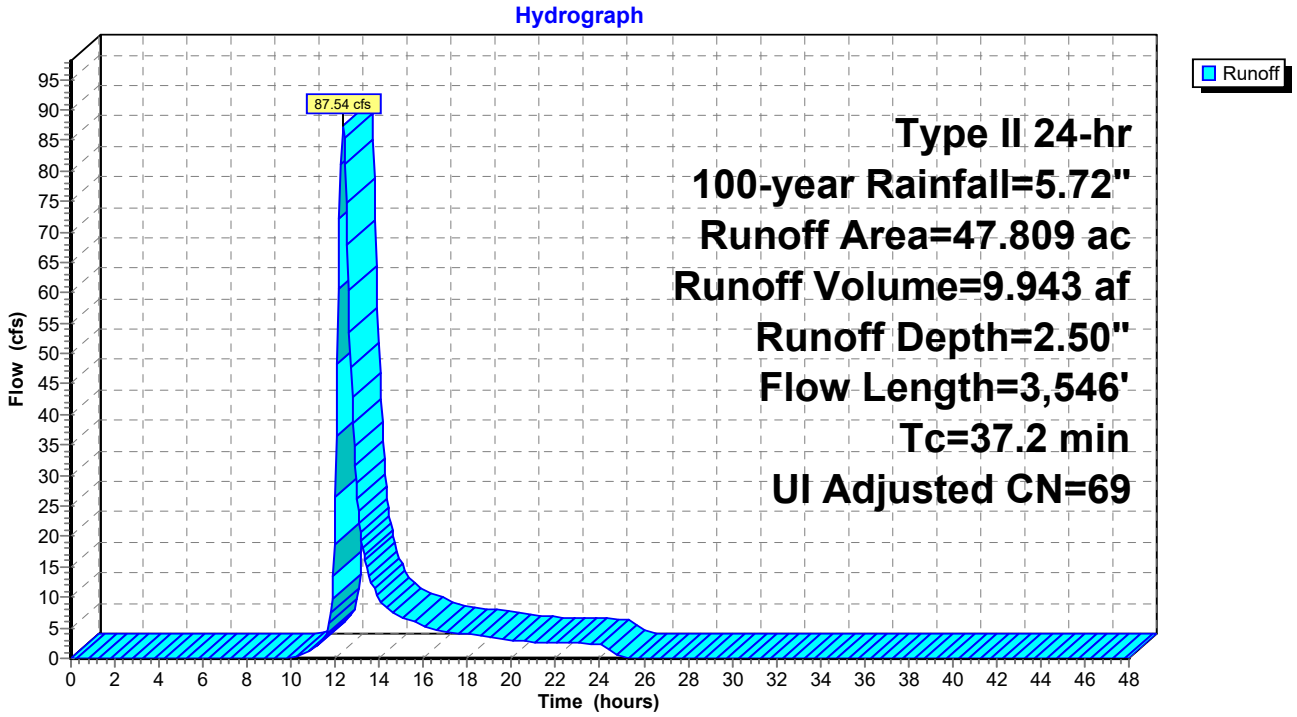
Runoff = 87.54 cfs @ 12.34 hrs, Volume= 9.943 af, Depth= 2.50"
Routed to Link SP54 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Adj	Description
2.214	48		Brush, Good, HSG B
4.952	65		Brush, Good, HSG C
2.646	98		Unconnected roofs, HSG D
5.345	58		Meadow, non-grazed, HSG B
23.606	71		Meadow, non-grazed, HSG C
2.360	61		>75% Grass cover, Good, HSG B
5.016	74		>75% Grass cover, Good, HSG C
1.095	98		Water Surface, HSG D
0.017	55		Woods, Good, HSG B
0.558	96		Gravel surface, HSG D
47.809	70	69	Weighted Average, UI Adjusted
44.068			92.18% Pervious Area
3.741			7.82% Impervious Area
2.646			70.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.0500	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
11.2	964	0.0420	1.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	166	0.0420	1.02		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	321	0.0312	2.84		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
13.7	1,995	0.0253	2.42	8.07	**Parabolic Channel,** W=5.00' D=1.00' Area=3.3 sf Perim=5.5' n= 0.070 Sluggish weedy reaches w/pools
37.2	3,546	Total			

Subcatchment 54S: Sub 54



Summary for Subcatchment 55S: Sub 55

[47] Hint: Peak is 470% of capacity of segment #5

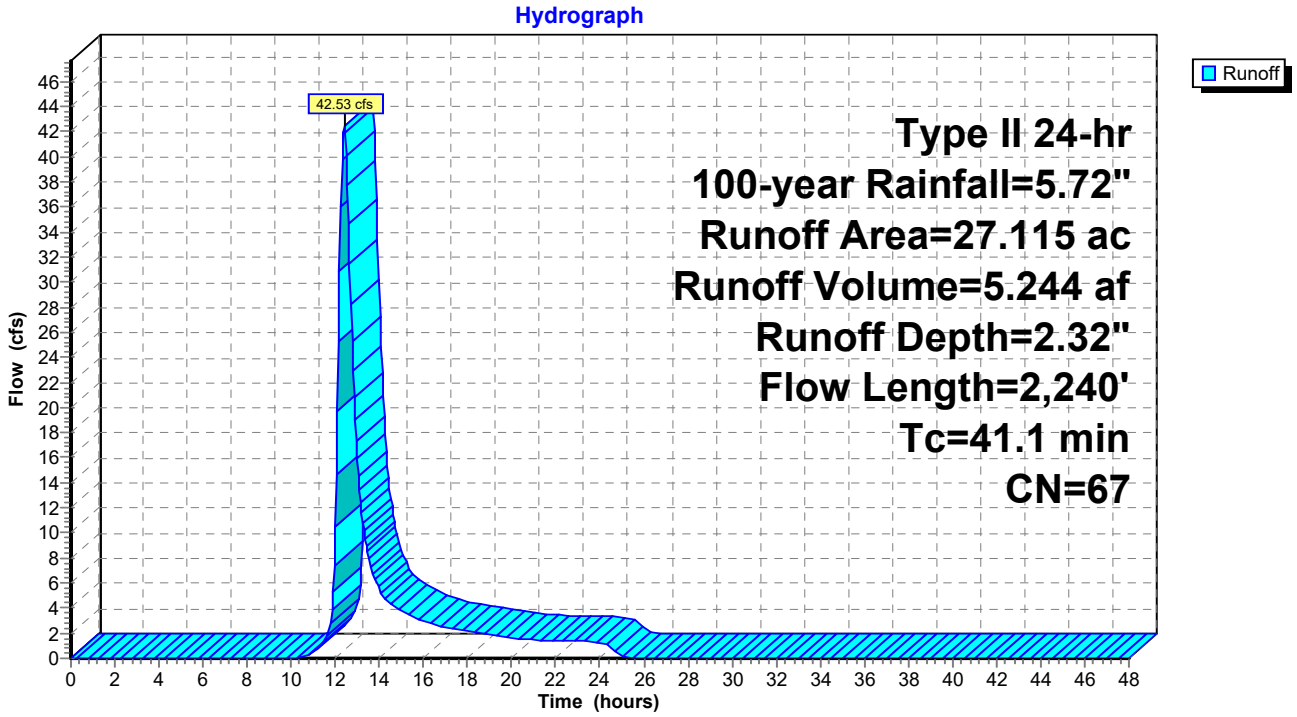
Runoff = 42.53 cfs @ 12.40 hrs, Volume= 5.244 af, Depth= 2.32"
Routed to Link SP55 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.417	48	Brush, Good, HSG B
0.206	65	Brush, Good, HSG C
0.193	98	Unconnected roofs, HSG D
9.181	58	Meadow, non-grazed, HSG B
16.245	71	Meadow, non-grazed, HSG C
0.190	55	Woods, Good, HSG B
0.236	70	Woods, Good, HSG C
0.447	96	Gravel surface, HSG D
27.115	67	Weighted Average
26.922		99.29% Pervious Area
0.193		0.71% Impervious Area
0.193		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.2	289	0.0970	2.18		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.4	730	0.0340	1.29		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.6	647	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	474	0.0527	3.39	9.05	**Parabolic Channel,** W=4.00' D=1.00' Area=2.7 sf Perim=4.6' n= 0.070 Sluggish weedy reaches w/pools
41.1	2,240	Total			

Subcatchment 55S: Sub 55



Summary for Subcatchment 56.1S: 56.1S

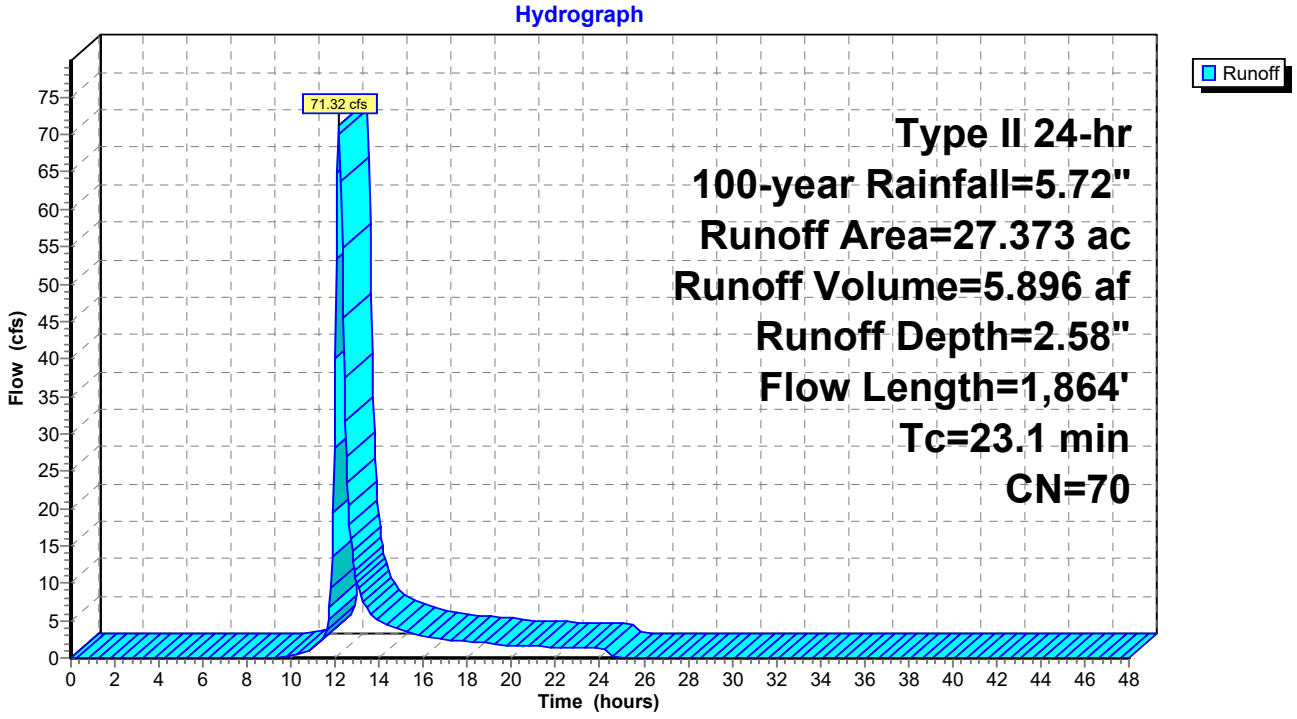
Runoff = 71.32 cfs @ 12.17 hrs, Volume= 5.896 af, Depth= 2.58"
Routed to Pond 56.1P : 56.1P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

	Area (ac)	CN	Description
	3.169	58	Meadow, non-grazed, HSG B
*	0.806	96	Gravel
	23.398	71	Meadow, non-grazed, HSG C
	27.373	70	Weighted Average
	27.373		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0300	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
7.7	1,108	0.1160	2.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.0	656	0.0670	1.81		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
23.1	1,864	Total			

Subcatchment 56.1S: 56.1S



Summary for Subcatchment 56S: Sub 56

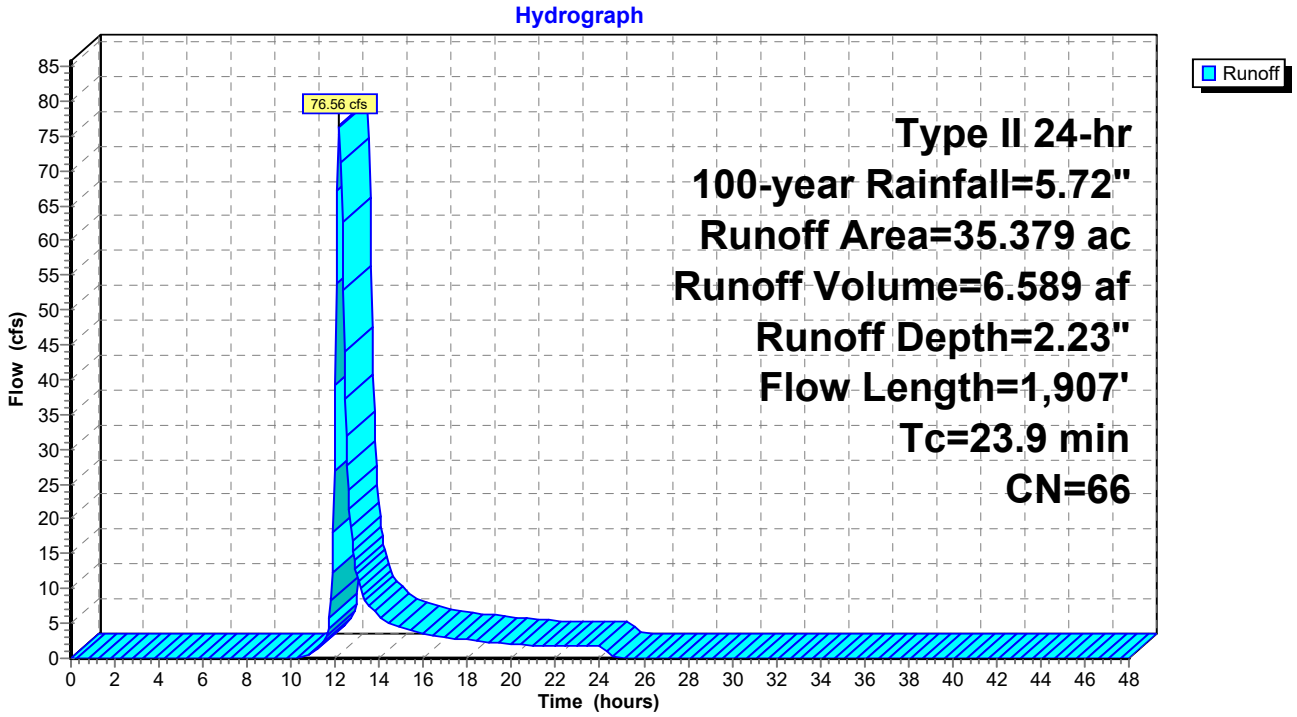
Runoff = 76.56 cfs @ 12.18 hrs, Volume= 6.589 af, Depth= 2.23"
Routed to Link SP56 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=5.72"

Area (ac)	CN	Description
0.895	48	Brush, Good, HSG B
1.460	65	Brush, Good, HSG C
10.196	58	Meadow, non-grazed, HSG B
15.876	71	Meadow, non-grazed, HSG C
1.244	55	Woods, Good, HSG B
5.708	70	Woods, Good, HSG C
35.379	66	Weighted Average
35.379		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0430	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.6	139	0.0430	1.45		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.7	369	0.1030	2.25		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	533	0.0820	2.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	206	0.2900	3.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.6	468	0.0580	1.69		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.5	92	0.0220	1.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
23.9	1,907	Total			

Subcatchment 56S: Sub 56



Summary for Reach 33R:

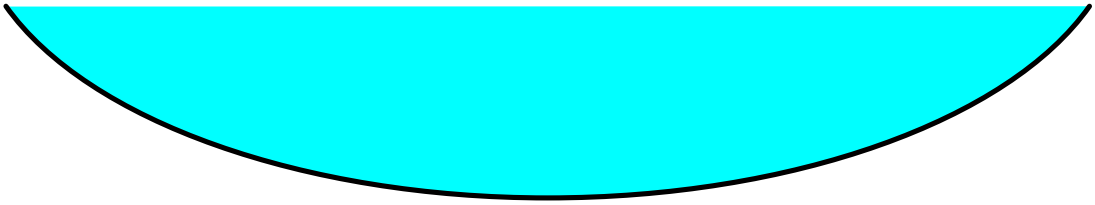
[91] Warning: Storage range exceeded by 0.83'
[55] Hint: Peak inflow is 346% of Manning's capacity
[79] Warning: Submerged Pond 34P Primary device # 1 OUTLET by 1.83'

Inflow Area = 25.795 ac, 1.16% Impervious, Inflow Depth = 1.90" for 100-year event
Inflow = 36.67 cfs @ 12.32 hrs, Volume= 4.087 af
Outflow = 29.05 cfs @ 12.62 hrs, Volume= 4.087 af, Atten= 21%, Lag= 17.9 min
Routed to Link SP34 :

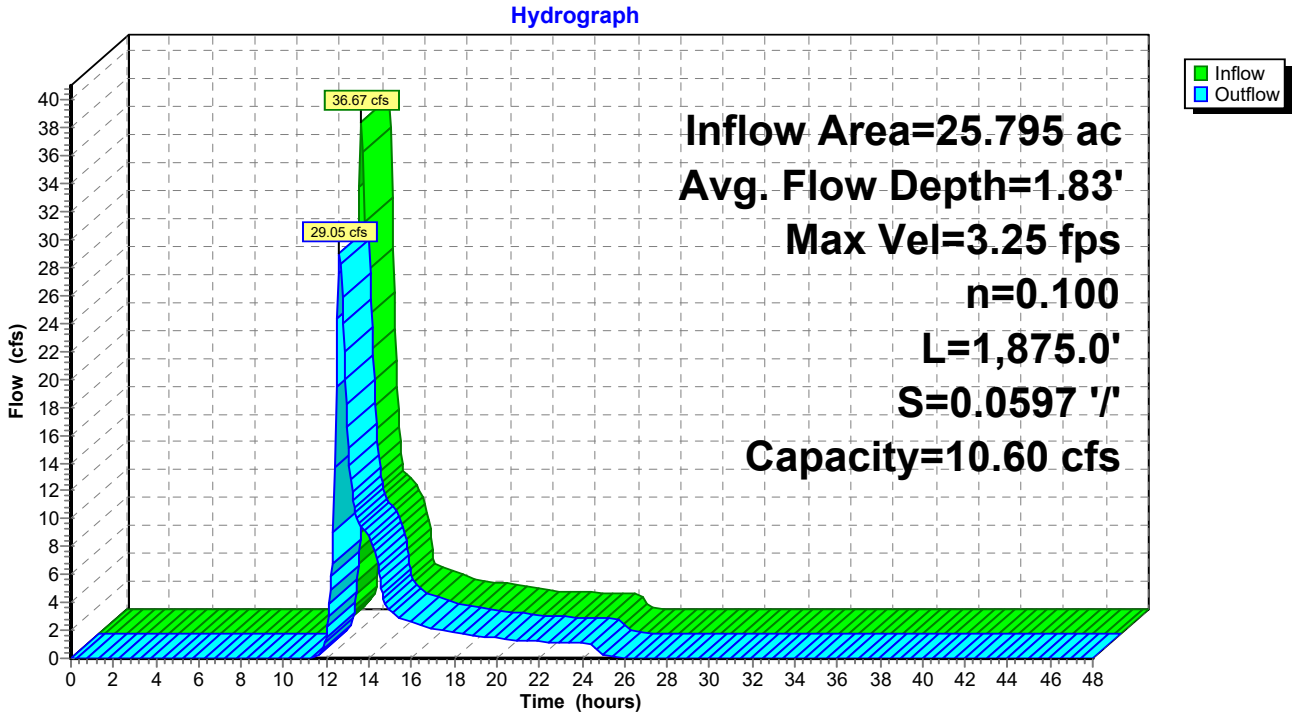
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.25 fps, Min. Travel Time= 9.6 min
Avg. Velocity = 0.75 fps, Avg. Travel Time= 41.8 min

Peak Storage= 16,794 cf @ 12.46 hrs
Average Depth at Peak Storage= 1.83' , Surface Width= 8.11'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 10.60 cfs

6.00' x 1.00' deep Parabolic Channel, n= 0.100 Earth, dense brush, high stage
Length= 1,875.0' Slope= 0.0597 '/'
Inlet Invert= 578.00', Outlet Invert= 466.00'



Reach 33R:


Hydrograph
Inflow
Outflow
36.67 cfs
29.05 cfs
Inflow Area=25.795 ac
Avg. Flow Depth=1.83'
Max Vel=3.25 fps
n=0.100
L=1,875.0'
S=0.0597 '/'
Capacity=10.60 cfs
Flow (cfs)
Time (hours)

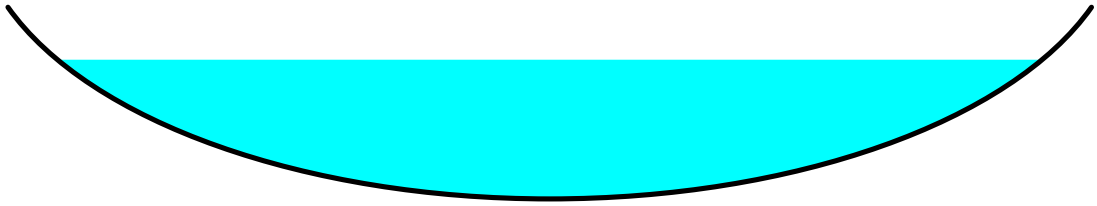
Summary for Reach 39R:

Inflow Area = 20.880 ac, 7.94% Impervious, Inflow Depth = 2.50" for 100-year event
Inflow = 45.31 cfs @ 12.24 hrs, Volume= 4.343 af
Outflow = 43.63 cfs @ 12.37 hrs, Volume= 4.343 af, Atten= 4%, Lag= 7.4 min
Routed to Link SP39 :

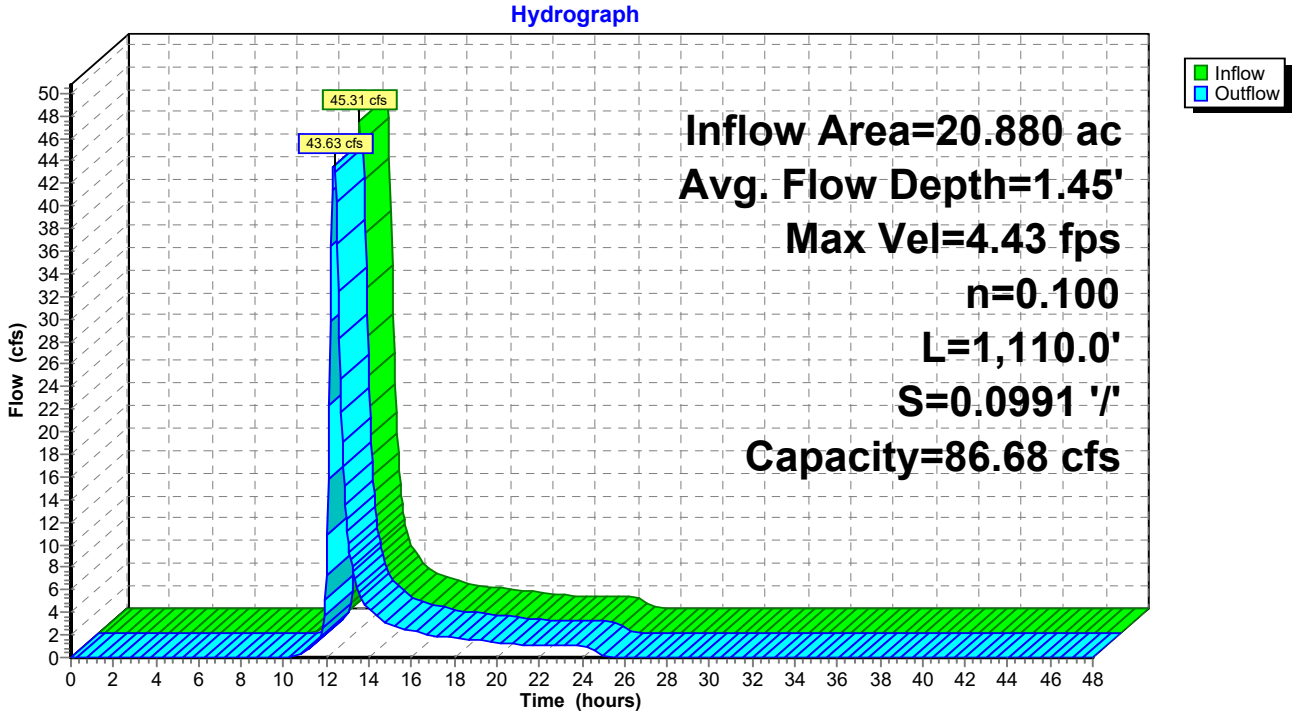
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.43 fps, Min. Travel Time= 4.2 min
Avg. Velocity = 1.24 fps, Avg. Travel Time= 14.9 min

Peak Storage= 11,003 cf @ 12.29 hrs
Average Depth at Peak Storage= 1.45' , Surface Width= 10.23'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 86.68 cfs

12.00' x 2.00' deep Parabolic Channel, n= 0.100 Earth, dense brush, high stage
Length= 1,110.0' Slope= 0.0991 '/'
Inlet Invert= 526.00', Outlet Invert= 416.00'



Reach 39R:



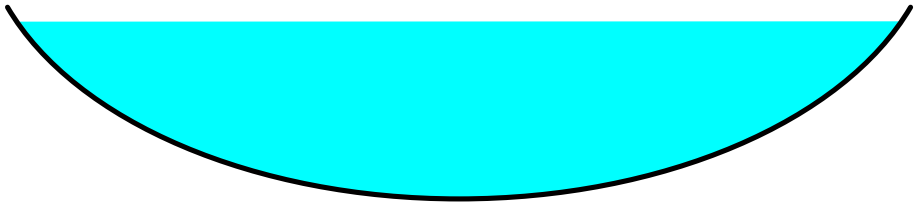
Summary for Reach 42R: S-NSD-16

Inflow Area = 31.263 ac, 0.62% Impervious, Inflow Depth = 2.15" for 100-year event
Inflow = 47.43 cfs @ 12.36 hrs, Volume= 5.601 af
Outflow = 44.01 cfs @ 12.60 hrs, Volume= 5.601 af, Atten= 7%, Lag= 14.6 min
Routed to Link SP42 :

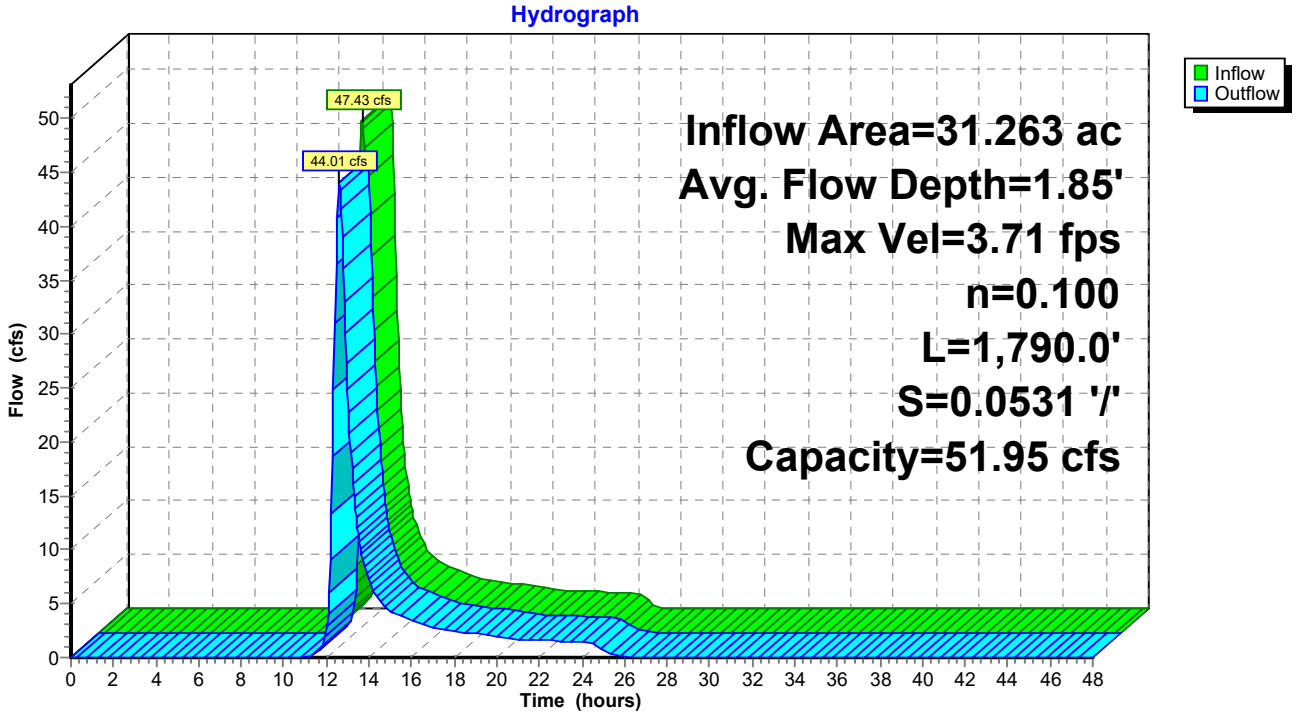
Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.71 fps, Min. Travel Time= 8.0 min
Avg. Velocity = 0.88 fps, Avg. Travel Time= 34.0 min

Peak Storage= 21,274 cf @ 12.47 hrs
Average Depth at Peak Storage= 1.85' , Surface Width= 9.62'
Bank-Full Depth= 2.00' Flow Area= 13.3 sf, Capacity= 51.95 cfs

10.00' x 2.00' deep Parabolic Channel, n= 0.100 Earth, dense brush, high stage
Length= 1,790.0' Slope= 0.0531 '/'
Inlet Invert= 470.00', Outlet Invert= 375.00'



Reach 42R: S-NSD-16



Summary for Pond 25.1P: 25.1P

Inflow Area = 3.422 ac, 0.00% Impervious, Inflow Depth = 2.58" for 100-year event
Inflow = 12.38 cfs @ 12.05 hrs, Volume= 0.737 af
Outflow = 1.15 cfs @ 12.78 hrs, Volume= 0.647 af, Atten= 91%, Lag= 44.0 min
Primary = 1.15 cfs @ 12.78 hrs, Volume= 0.647 af
Routed to Link SP25 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP25 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 606.40' @ 12.78 hrs Surf.Area= 7,687 sf Storage= 15,600 cf

Plug-Flow detention time= 223.8 min calculated for 0.647 af (88% of inflow)
Center-of-Mass det. time= 164.0 min (1,007.3 - 843.3)

Volume	Invert	Avail.Storage	Storage Description
#1	604.00'	20,422 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

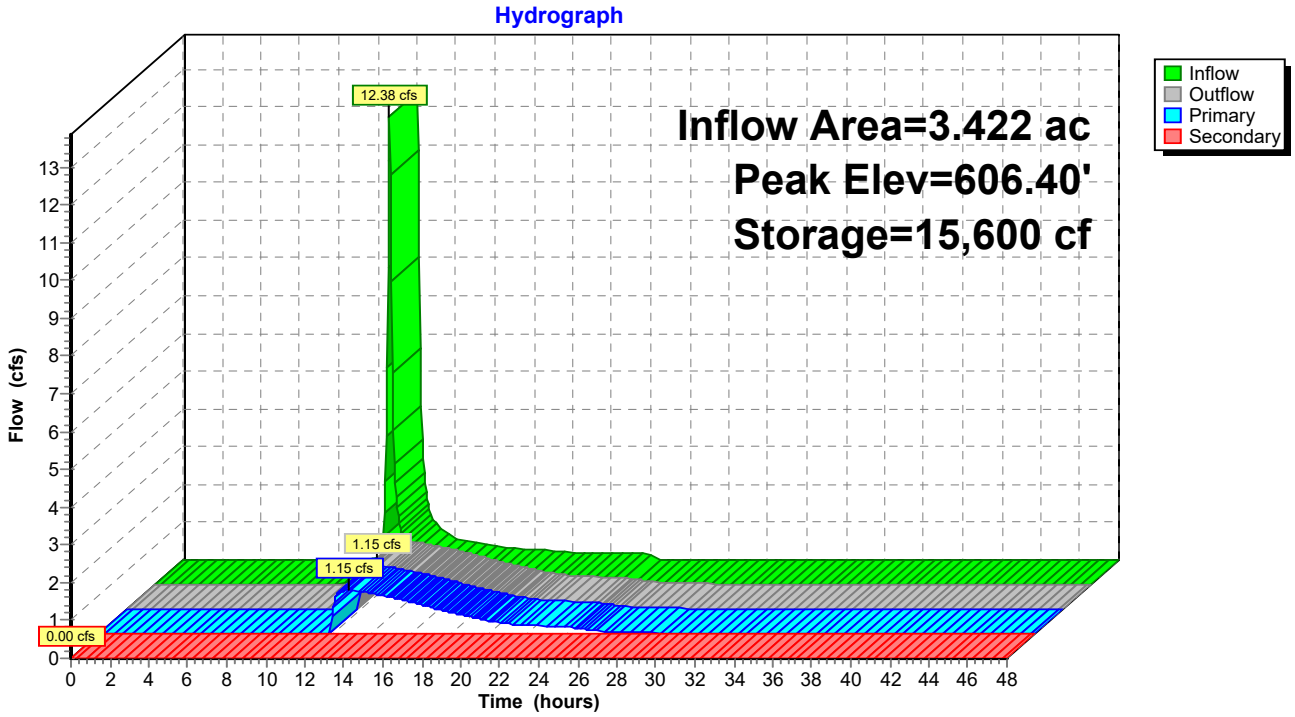
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
604.00	5,355	0	0
605.00	6,309	5,832	5,832
606.00	7,289	6,799	12,631
607.00	8,293	7,791	20,422

Device	Routing	Invert	Outlet Devices
#1	Primary	604.00'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 604.00' / 603.50' S= 0.0250 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	604.67'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	606.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	606.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=1.15 cfs @ 12.78 hrs HW=606.40' (Free Discharge)
└**1=Culvert** (Passes 1.15 cfs of 4.11 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.15 cfs @ 5.85 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=604.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 25.1P: 25.1P



Summary for Pond 27.1P: 27.1P

Inflow Area = 3.749 ac, 0.00% Impervious, Inflow Depth = 2.67" for 100-year event
Inflow = 12.98 cfs @ 12.07 hrs, Volume= 0.836 af
Outflow = 9.10 cfs @ 12.21 hrs, Volume= 0.622 af, Atten= 30%, Lag= 8.3 min
Primary = 5.73 cfs @ 12.21 hrs, Volume= 0.512 af
Routed to Link SP27 :
Secondary = 3.36 cfs @ 12.21 hrs, Volume= 0.110 af
Routed to Link SP27 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 553.76' @ 12.21 hrs Surf.Area= 4,614 sf Storage= 13,224 cf

Plug-Flow detention time= 227.5 min calculated for 0.622 af (74% of inflow)
Center-of-Mass det. time= 129.6 min (972.6 - 843.1)

Volume	Invert	Avail.Storage	Storage Description
#1	550.00'	14,360 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

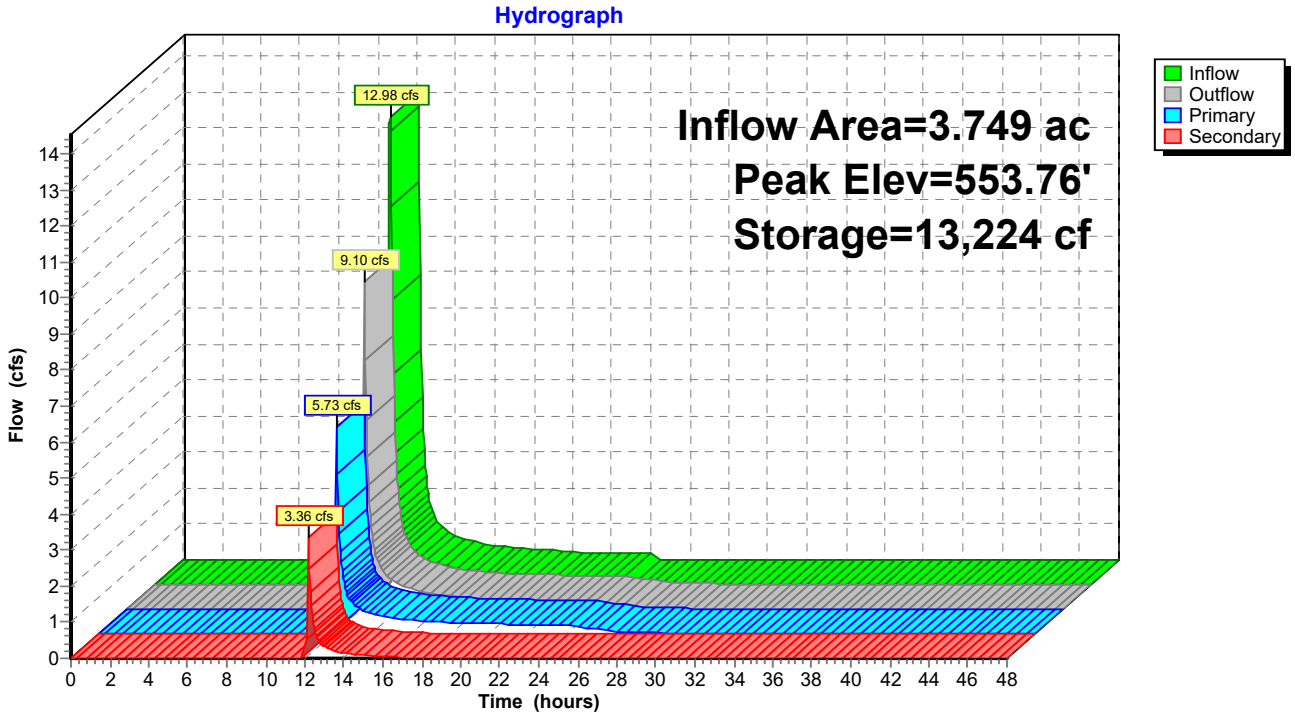
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
550.00	2,458	0	0
551.00	3,040	2,749	2,749
552.00	3,560	3,300	6,049
553.00	4,149	3,855	9,904
554.00	4,763	4,456	14,360

Device	Routing	Invert	Outlet Devices
#1	Primary	550.00'	**18.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 550.00' / 549.50' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	552.84'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	553.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	553.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=5.44 cfs @ 12.21 hrs HW=553.75' (Free Discharge)
└**1=Culvert** (Passes 5.44 cfs of 11.63 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.36 cfs @ 4.15 fps)
└**3=Orifice/Grate** (Weir Controls 5.08 cfs @ 1.63 fps)

Secondary OutFlow Max=3.17 cfs @ 12.21 hrs HW=553.75' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 3.17 cfs @ 1.19 fps)

Pond 27.1P: 27.1P



Summary for Pond 28.1P: 28.1P

Inflow Area = 2.160 ac, 0.00% Impervious, Inflow Depth = 2.67" for 100-year event
Inflow = 8.23 cfs @ 12.04 hrs, Volume= 0.481 af
Outflow = 0.90 cfs @ 12.62 hrs, Volume= 0.344 af, Atten= 89%, Lag= 35.0 min
Primary = 0.79 cfs @ 12.62 hrs, Volume= 0.341 af
Routed to Link SP28 :
Secondary = 0.11 cfs @ 12.62 hrs, Volume= 0.003 af
Routed to Link SP28 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 560.53' @ 12.62 hrs Surf.Area= 4,996 sf Storage= 10,718 cf

Plug-Flow detention time= 276.9 min calculated for 0.344 af (71% of inflow)
Center-of-Mass det. time= 175.2 min (1,015.7 - 840.5)

Volume	Invert	Avail.Storage	Storage Description
#1	558.00'	13,151 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

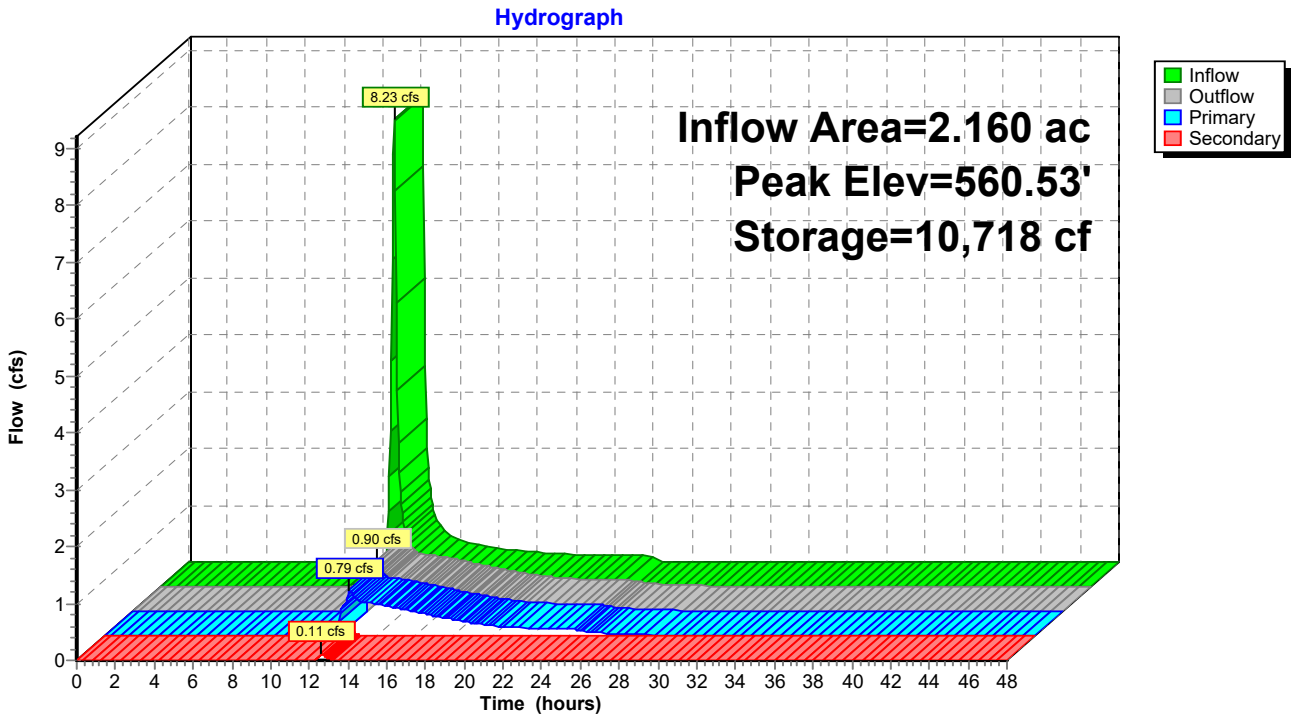
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
558.00	3,511	0	0
559.00	4,080	3,796	3,796
560.00	4,671	4,376	8,171
561.00	5,288	4,980	13,151

Device	Routing	Invert	Outlet Devices
#1	Primary	558.00'	**12.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 558.00' / 557.75' S= 0.0114 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	559.50'	**5.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	560.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	560.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.77 cfs @ 12.62 hrs HW=560.53' (Free Discharge)
└**1=Culvert** (Passes 0.77 cfs of 4.25 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.59 cfs @ 4.35 fps)
└**3=Orifice/Grate** (Weir Controls 0.17 cfs @ 0.53 fps)

Secondary OutFlow Max=0.10 cfs @ 12.62 hrs HW=560.53' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.10 cfs @ 0.39 fps)

Pond 28.1P: 28.1P



Summary for Pond 30.1P: 30.1P

Inflow Area = 4.003 ac, 0.00% Impervious, Inflow Depth = 2.67" for 100-year event
Inflow = 9.22 cfs @ 12.25 hrs, Volume= 0.892 af
Outflow = 3.20 cfs @ 12.71 hrs, Volume= 0.704 af, Atten= 65%, Lag= 27.7 min
Discarded = 0.02 cfs @ 12.71 hrs, Volume= 0.048 af
Primary = 3.18 cfs @ 12.71 hrs, Volume= 0.655 af
Routed to Link SP30 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP30 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 462.21' @ 12.71 hrs Surf.Area= 5,907 sf Storage= 15,801 cf

Plug-Flow detention time= 227.1 min calculated for 0.704 af (79% of inflow)
Center-of-Mass det. time= 139.1 min (996.1 - 857.0)

Volume	Invert	Avail.Storage	Storage Description
#1	459.00'	20,702 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
459.00	3,996	0	0
460.00	4,562	4,279	4,279
461.00	5,153	4,858	9,137
462.00	5,770	5,462	14,598
463.00	6,437	6,104	20,702

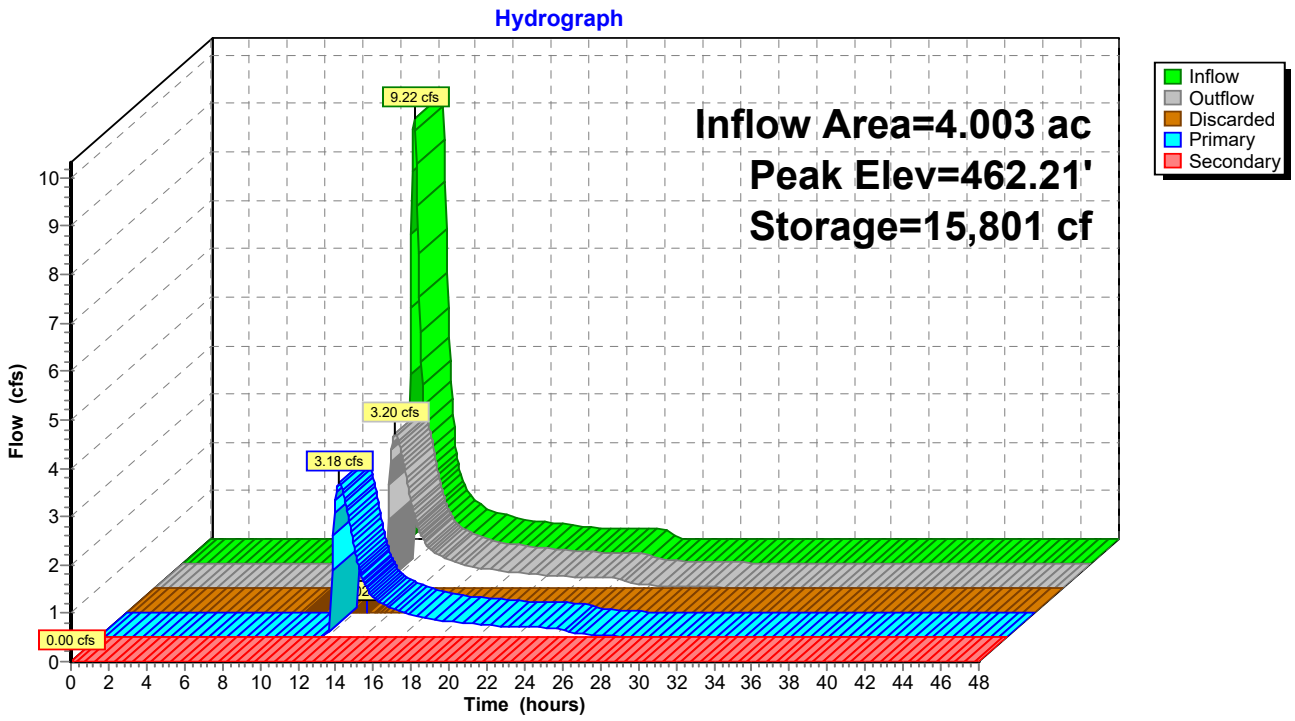
Device	Routing	Invert	Outlet Devices
#1	Primary	459.00'	**24.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 459.00' / 458.50' S= 0.0208 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	461.00'	**12.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	462.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	462.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#5	Discarded	459.00'	**0.129 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.02 cfs @ 12.71 hrs HW=462.21' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=3.18 cfs @ 12.71 hrs HW=462.21' (Free Discharge)
└**1=Culvert** (Passes 3.18 cfs of 17.73 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 3.18 cfs @ 4.04 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=459.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond 30.1P: 30.1P



Summary for Pond 31.1P: 31.1P

Inflow Area = 0.925 ac, 0.00% Impervious, Inflow Depth = 2.58" for 100-year event
Inflow = 3.58 cfs @ 12.02 hrs, Volume= 0.199 af
Outflow = 0.02 cfs @ 24.16 hrs, Volume= 0.061 af, Atten= 99%, Lag= 728.2 min
Discarded = 0.02 cfs @ 24.16 hrs, Volume= 0.061 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 511.79' @ 24.16 hrs Surf.Area= 4,911 sf Storage= 7,727 cf

Plug-Flow detention time= 1,056.9 min calculated for 0.061 af (31% of inflow)
Center-of-Mass det. time= 923.6 min (1,764.9 - 841.4)

Volume	Invert	Avail.Storage	Storage Description
#1	510.00'	14,187 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
510.00	3,748	0	0
511.00	4,388	4,068	4,068
512.00	5,053	4,721	8,789
513.00	5,744	5,399	14,187

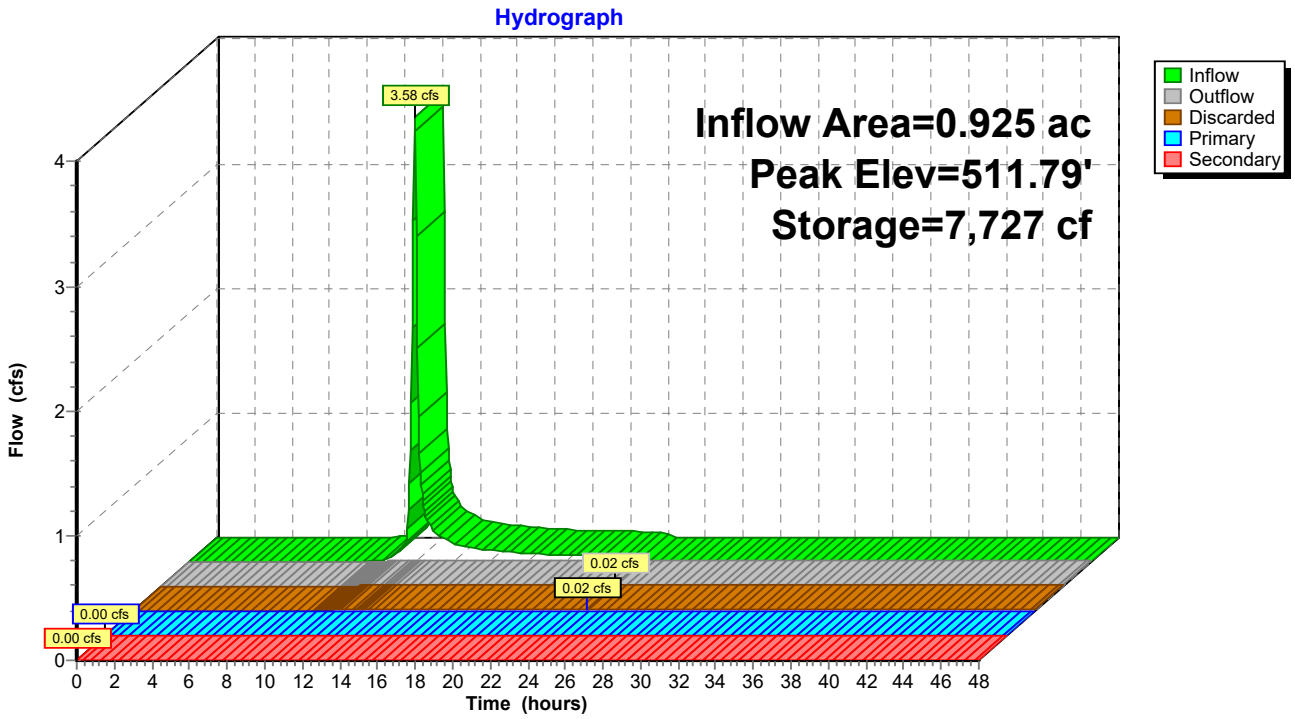
Device	Routing	Invert	Outlet Devices
#1	Primary	510.00'	**12.0" Round Culvert** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 510.00' / 509.50' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	512.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	512.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#4	Discarded	510.00'	**0.179 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.02 cfs @ 24.16 hrs HW=511.79' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=510.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=510.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 31.1P: 31.1P



Summary for Pond 32.1P: 32.1P

Inflow Area = 5.376 ac, 0.00% Impervious, Inflow Depth = 2.58" for 100-year event
Inflow = 15.23 cfs @ 12.13 hrs, Volume= 1.158 af
Outflow = 0.51 cfs @ 16.64 hrs, Volume= 0.867 af, Atten= 97%, Lag= 270.4 min
Primary = 0.51 cfs @ 16.64 hrs, Volume= 0.867 af
Routed to Link SP34 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 554.66' @ 16.64 hrs Surf.Area= 13,998 sf Storage= 33,162 cf

Plug-Flow detention time= 682.8 min calculated for 0.867 af (75% of inflow)
Center-of-Mass det. time= 585.3 min (1,435.6 - 850.3)

Volume	Invert	Avail.Storage	Storage Description
#1	552.00'	52,989 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

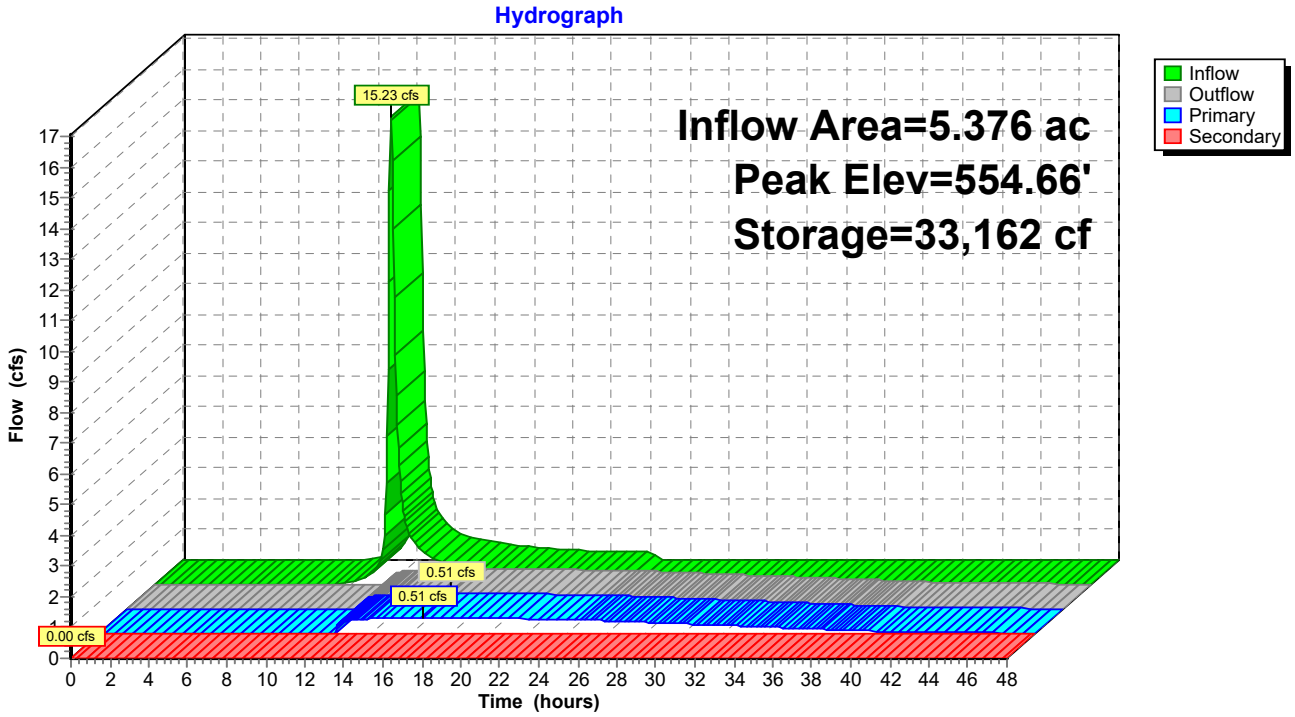
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
552.00	10,968	0	0
553.00	12,086	11,527	11,527
554.00	13,228	12,657	24,184
555.00	14,396	13,812	37,996
556.00	15,589	14,993	52,989

Device	Routing	Invert	Outlet Devices
#1	Primary	552.00'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 552.00' / 551.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	553.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	555.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	555.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.51 cfs @ 16.64 hrs HW=554.66' (Free Discharge)
└**1=Culvert** (Passes 0.51 cfs of 4.39 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.51 cfs @ 5.88 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=552.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 32.1P: 32.1P



Summary for Pond 33.1P: 33.1P

Inflow Area = 12.768 ac, 1.41% Impervious, Inflow Depth = 2.86" for 100-year event
Inflow = 27.66 cfs @ 12.33 hrs, Volume= 3.041 af
Outflow = 0.68 cfs @ 24.04 hrs, Volume= 1.752 af, Atten= 98%, Lag= 703.1 min
Primary = 0.68 cfs @ 24.04 hrs, Volume= 1.752 af
Routed to Link SP34 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP34 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 593.26' @ 24.04 hrs Surf.Area= 34,840 sf Storage= 103,992 cf

Plug-Flow detention time= 1,013.7 min calculated for 1.752 af (58% of inflow)
Center-of-Mass det. time= 895.3 min (1,753.5 - 858.2)

Volume	Invert	Avail.Storage	Storage Description
#1	590.00'	130,285 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

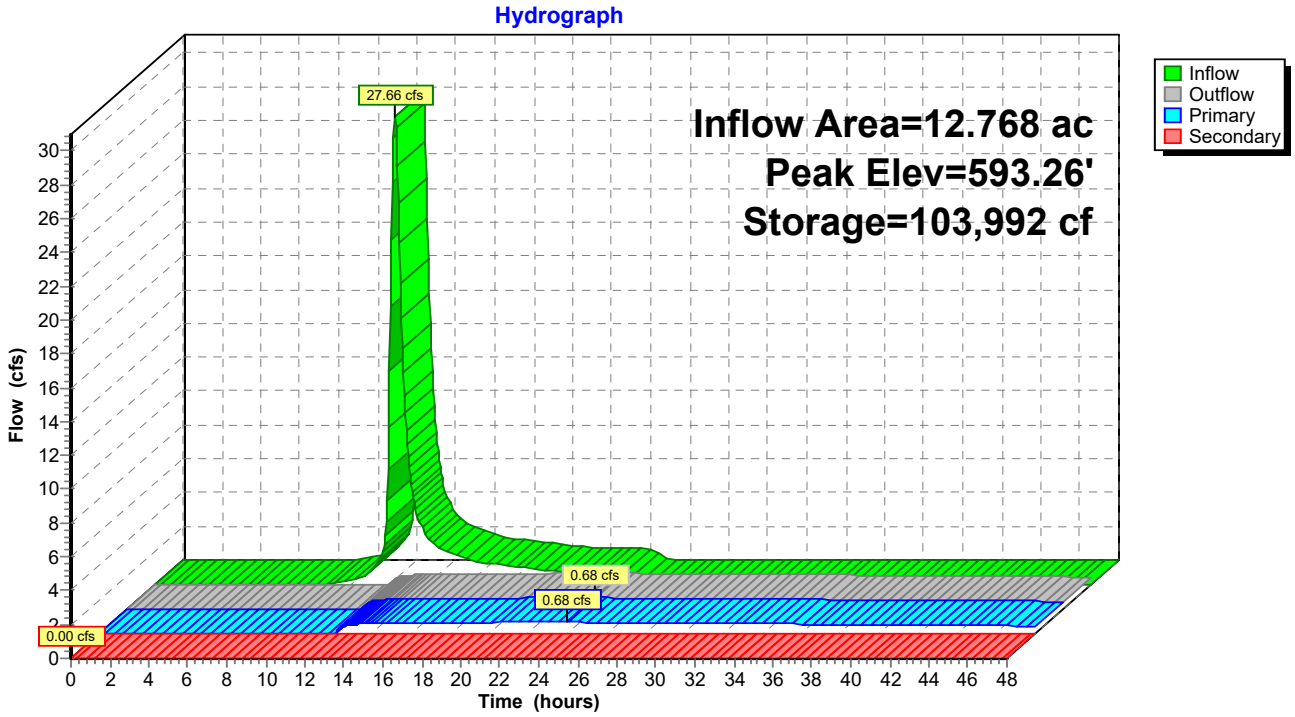
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
590.00	29,006	0	0
591.00	30,767	29,887	29,887
592.00	32,552	31,660	61,546
593.00	34,363	33,458	95,004
594.00	36,199	35,281	130,285

Device	Routing	Invert	Outlet Devices
#1	Primary	590.00'	**12.0" Round Culvert** L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 590.00' / 589.75' S= 0.0083 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	590.50'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	593.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	593.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.68 cfs @ 24.04 hrs HW=593.26' (Free Discharge)
└**1=Culvert** (Passes 0.68 cfs of 4.96 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.68 cfs @ 7.75 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=590.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 33.1P: 33.1P



Summary for Pond 34P: VAN EPPS RD CULVERT

Inflow Area = 25.795 ac, 1.16% Impervious, Inflow Depth = 1.90" for 100-year event
Inflow = 46.09 cfs @ 12.19 hrs, Volume= 4.087 af
Outflow = 36.67 cfs @ 12.32 hrs, Volume= 4.087 af, Atten= 20%, Lag= 7.9 min
Primary = 10.51 cfs @ 12.32 hrs, Volume= 3.304 af
Routed to Reach 33R :
Secondary = 26.16 cfs @ 12.32 hrs, Volume= 0.783 af
Routed to Reach 33R :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 585.70' @ 12.32 hrs Surf.Area= 16,549 sf Storage= 27,574 cf

Plug-Flow detention time= 11.1 min calculated for 4.083 af (100% of inflow)
Center-of-Mass det. time= 11.1 min (884.9 - 873.9)

Volume	Invert	Avail.Storage	Storage Description
#1	580.00'	32,769 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

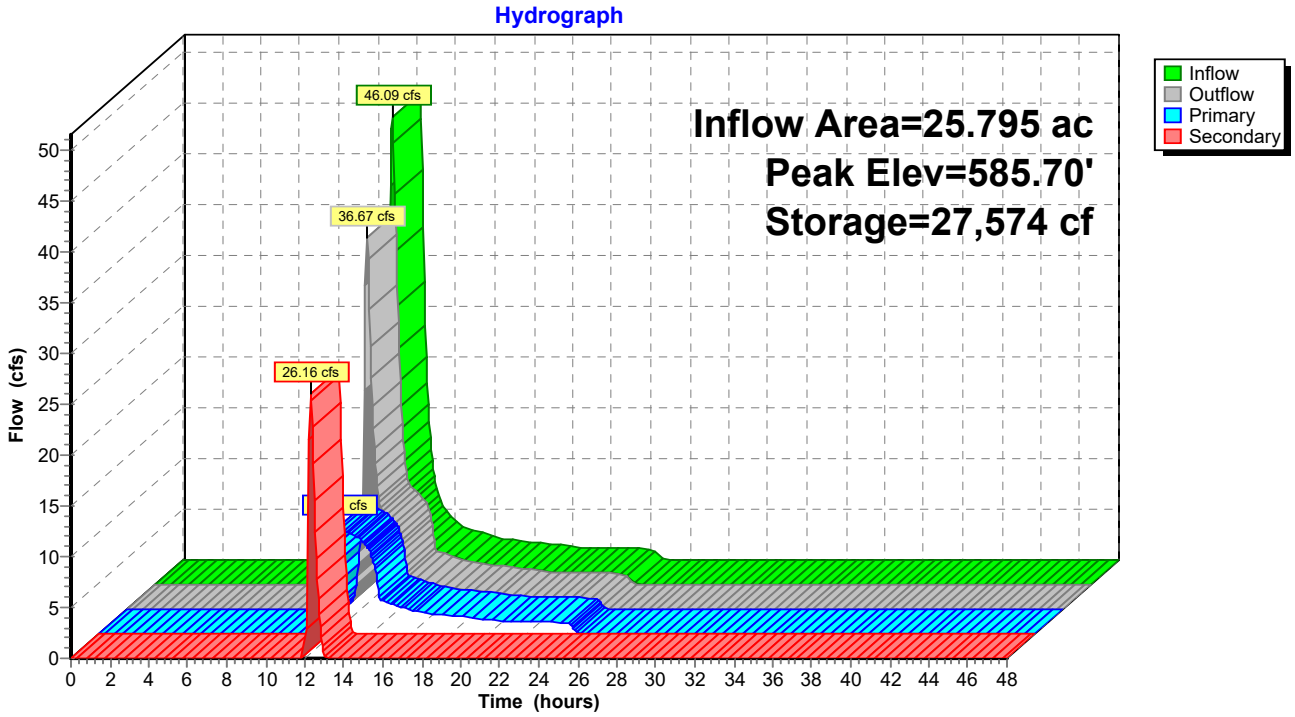
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
580.00	1	5.0	0	0	1
582.00	935	220.0	644	644	3,857
584.00	6,900	505.0	6,917	7,561	20,316
585.00	12,860	515.0	9,727	17,288	21,274
586.00	18,260	645.0	15,481	32,769	33,289

Device	Routing	Invert	Outlet Devices
#1	Primary	580.00'	**15.0" Round Culvert** L= 79.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 580.00' / 578.00' S= 0.0253 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Secondary	585.00'	**15.0' long + 3.0 '/' SideZ x 25.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=10.50 cfs @ 12.32 hrs HW=585.69' (Free Discharge)
1=Culvert (Inlet Controls 10.50 cfs @ 8.56 fps)

Secondary OutFlow Max=25.60 cfs @ 12.32 hrs HW=585.69' (Free Discharge)
2=Broad-Crested Rectangular Weir (Weir Controls 25.60 cfs @ 2.17 fps)

Pond 34P: VAN EPPS RD CULVERT



Summary for Pond 42P: 42P

Inflow Area = 4.857 ac, 0.00% Impervious, Inflow Depth = 2.44" for 100-year event
Inflow = 20.60 cfs @ 11.98 hrs, Volume= 0.986 af
Outflow = 0.45 cfs @ 16.31 hrs, Volume= 0.492 af, Atten= 98%, Lag= 260.2 min
Primary = 0.40 cfs @ 16.31 hrs, Volume= 0.482 af
Routed to Link SP42 :
Secondary = 0.05 cfs @ 16.31 hrs, Volume= 0.010 af
Routed to Link SP42 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 460.51' @ 16.31 hrs Surf.Area= 13,766 sf Storage= 30,397 cf

Plug-Flow detention time= 644.1 min calculated for 0.491 af (50% of inflow)
Center-of-Mass det. time= 518.0 min (1,359.1 - 841.1)

Volume	Invert	Avail.Storage	Storage Description
#1	458.00'	37,253 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

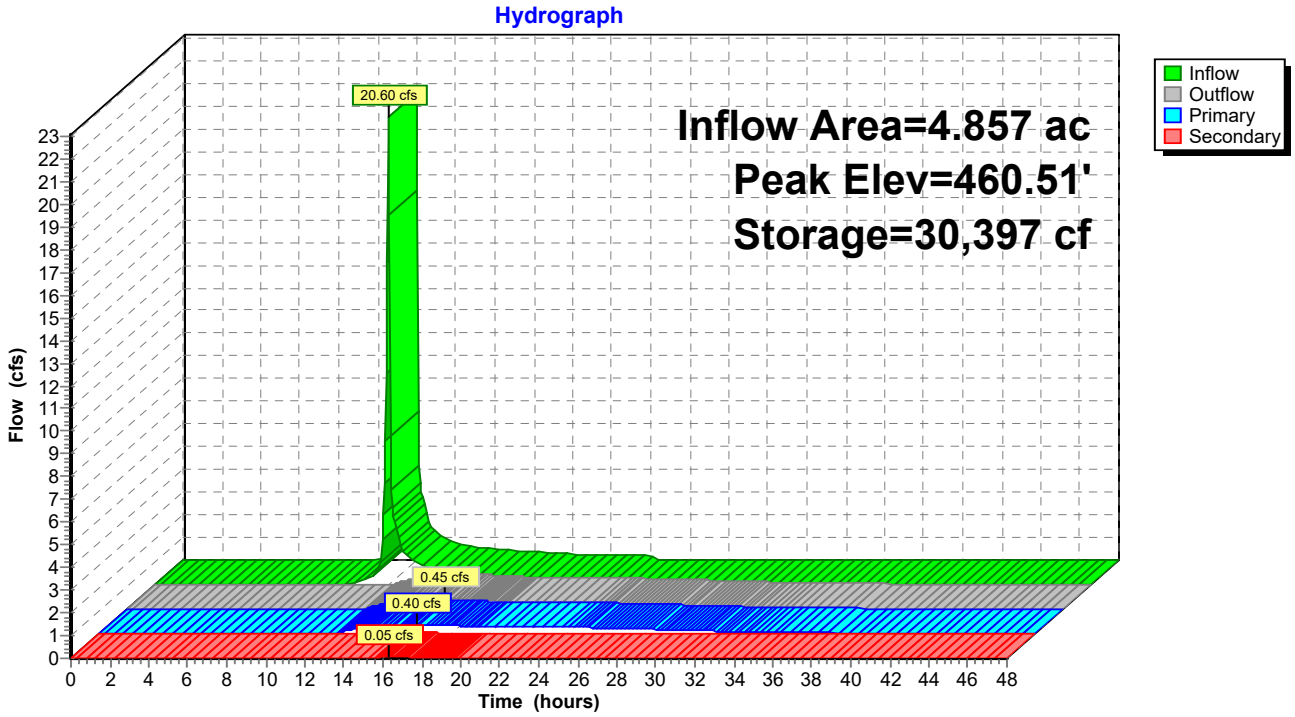
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
458.00	10,519	610.0	0	0	10,519
459.00	11,752	622.6	11,130	11,130	11,900
460.00	13,010	635.2	12,376	23,505	13,309
461.00	14,498	714.6	13,747	37,253	21,865

Device	Routing	Invert	Outlet Devices
#1	Primary	458.00'	**12.0" Round Culvert** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 458.00' / 456.75' S= 0.0391 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	459.78'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	460.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	460.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.39 cfs @ 16.31 hrs HW=460.51' (Free Discharge)
└**1=Culvert** (Passes 0.39 cfs of 4.24 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.32 cfs @ 3.63 fps)
  └**3=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.40 fps)

Secondary OutFlow Max=0.04 cfs @ 16.31 hrs HW=460.51' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.04 cfs @ 0.29 fps)

Pond 42P: 42P


Hydrograph
Inflow Area=4.857 ac
Peak Elev=460.51'
Storage=30,397 cf
20.60 cfs
0.45 cfs
0.40 cfs
0.05 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)

Summary for Pond 49.1P: 49.1P

Inflow Area = 4.740 ac, 6.79% Impervious, Inflow Depth = 2.15" for 100-year event
Inflow = 15.27 cfs @ 12.02 hrs, Volume= 0.849 af
Outflow = 0.43 cfs @ 16.10 hrs, Volume= 0.214 af, Atten= 97%, Lag= 244.8 min
Primary = 0.27 cfs @ 16.10 hrs, Volume= 0.135 af
Routed to Link SP42 :
Secondary = 0.16 cfs @ 16.10 hrs, Volume= 0.079 af
Routed to Link SP42 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 535.53' @ 16.10 hrs Surf.Area= 9,685 sf Storage= 28,001 cf

Plug-Flow detention time= 452.6 min calculated for 0.214 af (25% of inflow)
Center-of-Mass det. time= 310.4 min (1,163.6 - 853.2)

Volume	Invert	Avail.Storage	Storage Description
#1	532.00'	32,642 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

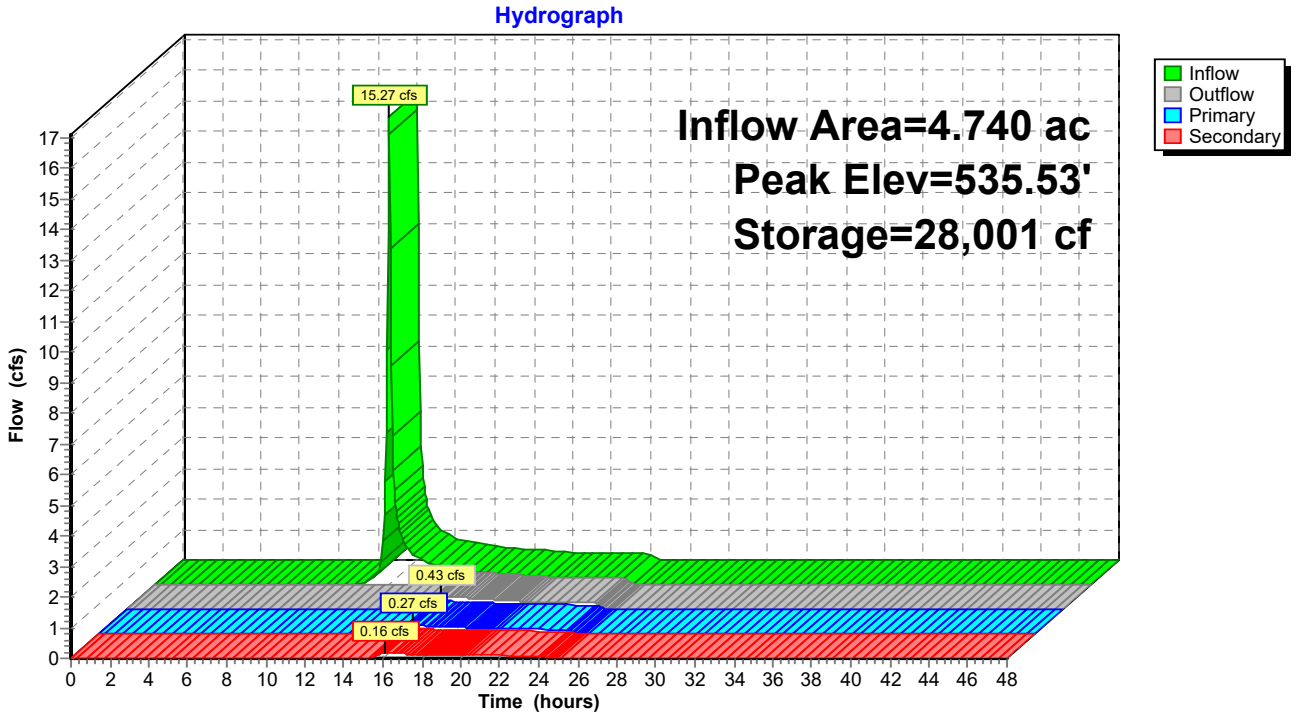
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
532.00	6,368	0	0
533.00	7,185	6,777	6,777
534.00	8,079	7,632	14,409
535.00	9,092	8,586	22,994
536.00	10,204	9,648	32,642

Device	Routing	Invert	Outlet Devices
#1	Primary	532.00'	**24.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 532.00' / 531.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	535.83'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	535.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	535.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.25 cfs @ 16.10 hrs HW=535.53' (Free Discharge)
└**1=Culvert** (Passes 0.25 cfs of 19.01 cfs potential flow)
├**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Weir Controls 0.25 cfs @ 0.60 fps)

Secondary OutFlow Max=0.15 cfs @ 16.10 hrs HW=535.53' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.15 cfs @ 0.43 fps)

Pond 49.1P: 49.1P



Summary for Pond 49.2P: 49.2S

Inflow Area = 3.533 ac, 0.14% Impervious, Inflow Depth = 2.58" for 100-year event
Inflow = 15.75 cfs @ 11.97 hrs, Volume= 0.761 af
Outflow = 11.36 cfs @ 12.05 hrs, Volume= 0.685 af, Atten= 28%, Lag= 4.5 min
Primary = 2.74 cfs @ 12.05 hrs, Volume= 0.502 af
Routed to Link SP42 :
Secondary = 8.63 cfs @ 12.05 hrs, Volume= 0.183 af
Routed to Link SP42 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 523.95' @ 12.05 hrs Surf.Area= 6,447 sf Storage= 10,673 cf

Plug-Flow detention time= 143.9 min calculated for 0.685 af (90% of inflow)
Center-of-Mass det. time= 94.5 min (931.9 - 837.4)

Volume	Invert	Avail.Storage	Storage Description
#1	522.00'	11,001 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

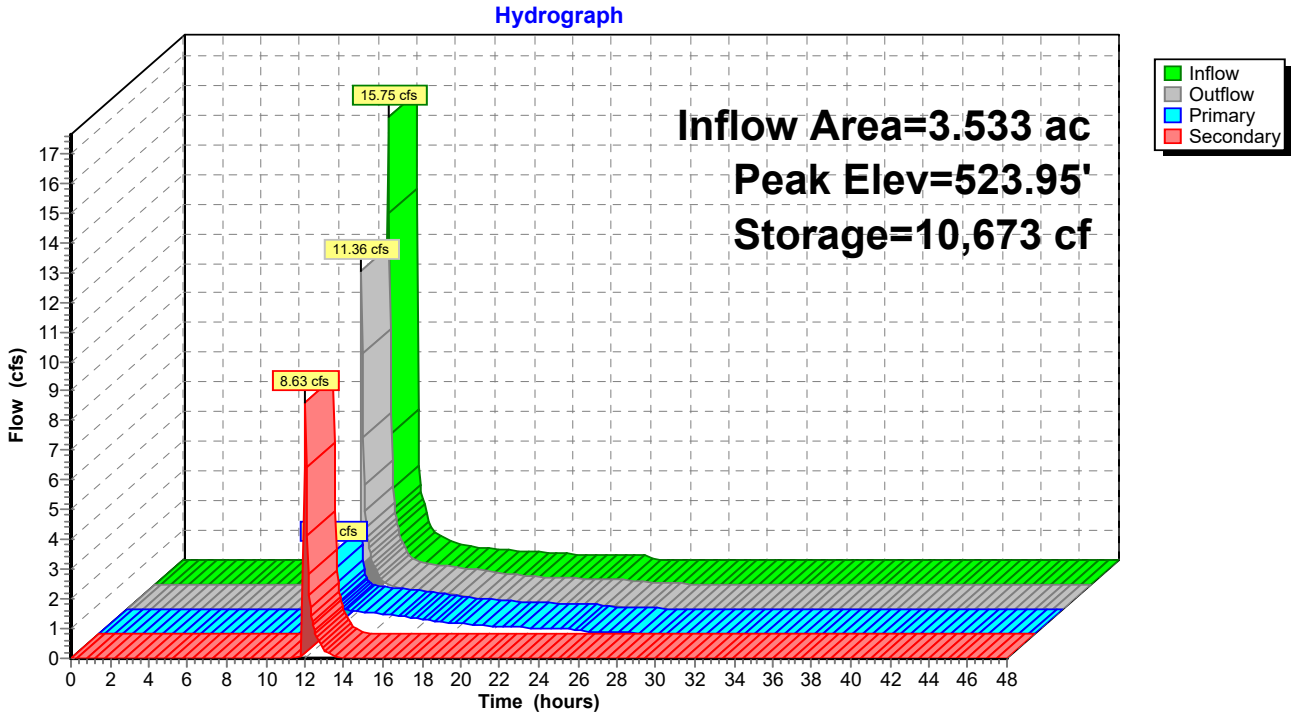
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
522.00	4,515	0	0
523.00	5,494	5,005	5,005
524.00	6,498	5,996	11,001

Device	Routing	Invert	Outlet Devices
#1	Primary	522.00'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 522.00' / 521.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	522.67'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	523.50'	**48.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	523.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=2.73 cfs @ 12.05 hrs HW=523.95' (Free Discharge)
└**1=Culvert** (Passes 2.73 cfs of 3.59 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.96 cfs @ 4.88 fps)
└**3=Orifice/Grate** (Orifice Controls 1.77 cfs @ 2.28 fps)

Secondary OutFlow Max=8.60 cfs @ 12.05 hrs HW=523.95' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 8.60 cfs @ 1.69 fps)

Pond 49.2P: 49.2S



Summary for Pond 51.1P: 51.1P

Inflow Area = 8.131 ac, 0.00% Impervious, Inflow Depth = 2.86" for 100-year event
Inflow = 21.79 cfs @ 12.20 hrs, Volume= 1.936 af
Outflow = 4.27 cfs @ 12.86 hrs, Volume= 1.314 af, Atten= 80%, Lag= 39.5 min
Primary = 3.09 cfs @ 12.86 hrs, Volume= 1.232 af
Routed to Link SP51 :
Secondary = 1.18 cfs @ 12.86 hrs, Volume= 0.082 af
Routed to Link SP51 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 606.63' @ 12.86 hrs Surf.Area= 11,870 sf Storage= 44,776 cf

Plug-Flow detention time= 363.4 min calculated for 1.314 af (68% of inflow)
Center-of-Mass det. time= 255.7 min (1,104.8 - 849.1)

Volume	Invert	Avail.Storage	Storage Description
#1	602.00'	49,222 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

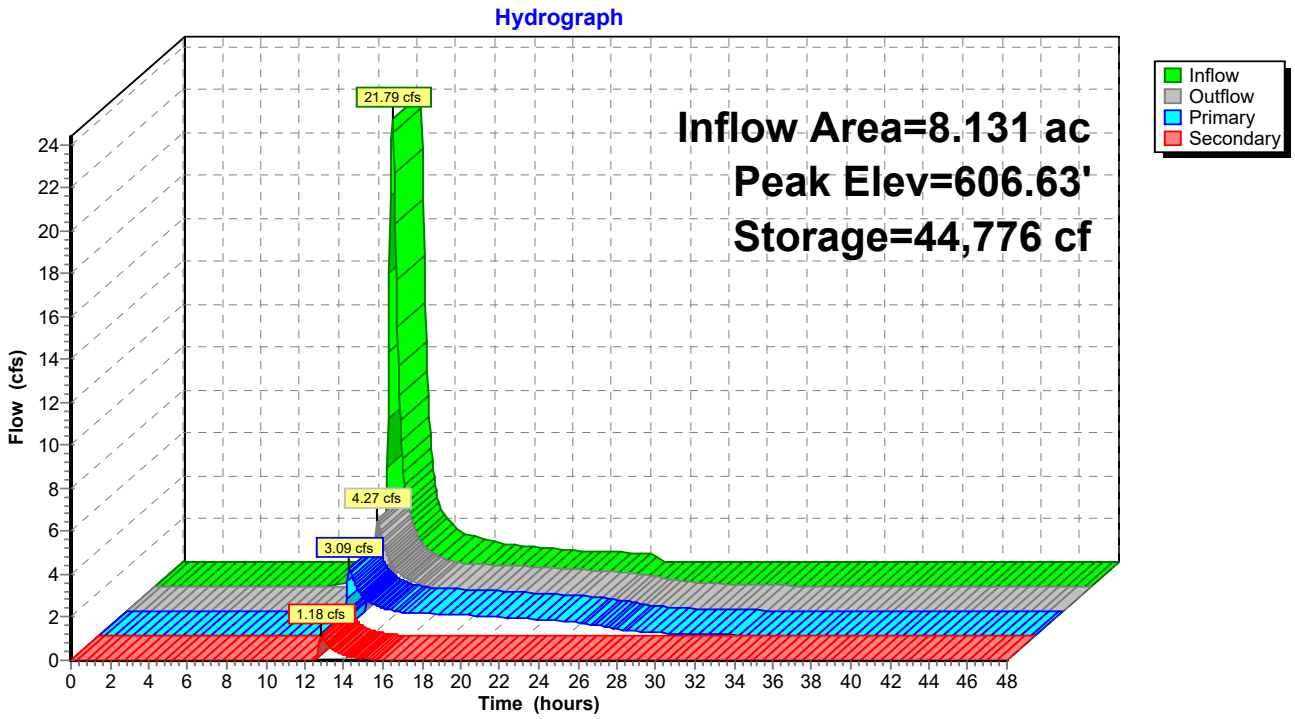
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
602.00	7,555	0	0
603.00	8,441	7,998	7,998
604.00	9,351	8,896	16,894
605.00	10,287	9,819	26,713
606.00	11,248	10,768	37,481
607.00	12,234	11,741	49,222

Device	Routing	Invert	Outlet Devices
#1	Primary	600.00'	**12.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 600.00' / 598.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	605.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	606.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	606.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=3.05 cfs @ 12.86 hrs HW=606.63' (Free Discharge)
└**1=Culvert** (Passes 3.05 cfs of 7.39 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 1.11 cfs @ 5.66 fps)
└**3=Orifice/Grate** (Weir Controls 1.94 cfs @ 1.18 fps)

Secondary OutFlow Max=1.16 cfs @ 12.86 hrs HW=606.63' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 1.16 cfs @ 0.85 fps)

Pond 51.1P: 51.1P



Summary for Pond 52.1P: 52.1P

Inflow Area = 0.805 ac, 0.00% Impervious, Inflow Depth = 2.67" for 100-year event
Inflow = 4.43 cfs @ 11.89 hrs, Volume= 0.179 af
Outflow = 0.04 cfs @ 23.40 hrs, Volume= 0.030 af, Atten= 99%, Lag= 690.1 min
Primary = 0.04 cfs @ 23.40 hrs, Volume= 0.030 af
Routed to Link SP52 :
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link SP52 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 649.62' @ 23.40 hrs Surf.Area= 5,020 sf Storage= 7,046 cf

Plug-Flow detention time= 784.8 min calculated for 0.030 af (17% of inflow)
Center-of-Mass det. time= 642.9 min (1,472.3 - 829.4)

Volume	Invert	Avail.Storage	Storage Description
#1	648.00'	14,790 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

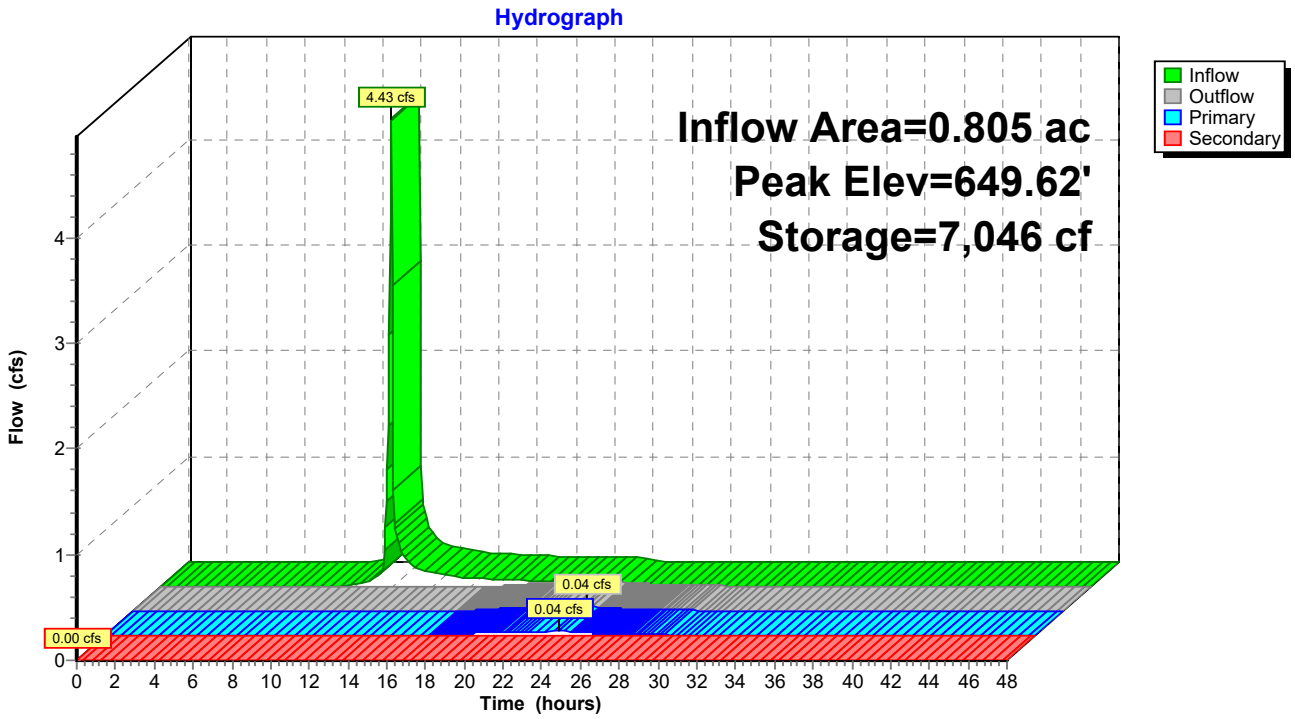
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
648.00	3,699	0	0
649.00	4,506	4,103	4,103
650.00	5,337	4,922	9,024
651.00	6,194	5,766	14,790

Device	Routing	Invert	Outlet Devices
#1	Primary	648.00'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 648.00' / 647.50' S= 0.0250 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	649.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	650.50'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	650.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.04 cfs @ 23.40 hrs HW=649.62' (Free Discharge)
└**1=Culvert** (Passes 0.04 cfs of 3.16 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 1.17 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=648.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 52.1P: 52.1P



Summary for Pond 56.1P: 56.1P

Inflow Area = 27.373 ac, 0.00% Impervious, Inflow Depth = 2.58" for 100-year event
Inflow = 71.32 cfs @ 12.17 hrs, Volume= 5.896 af
Outflow = 17.48 cfs @ 12.66 hrs, Volume= 5.433 af, Atten= 75%, Lag= 29.8 min
Primary = 13.35 cfs @ 12.66 hrs, Volume= 5.090 af
Routed to Link SP56 :
Secondary = 4.14 cfs @ 12.66 hrs, Volume= 0.343 af
Routed to Link SP56 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 419.79' @ 12.66 hrs Surf.Area= 27,255 sf Storage= 122,515 cf

Plug-Flow detention time= 528.9 min calculated for 5.428 af (92% of inflow)
Center-of-Mass det. time= 488.3 min (1,341.5 - 853.2)

Volume	Invert	Avail.Storage	Storage Description
#1	414.00'	128,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

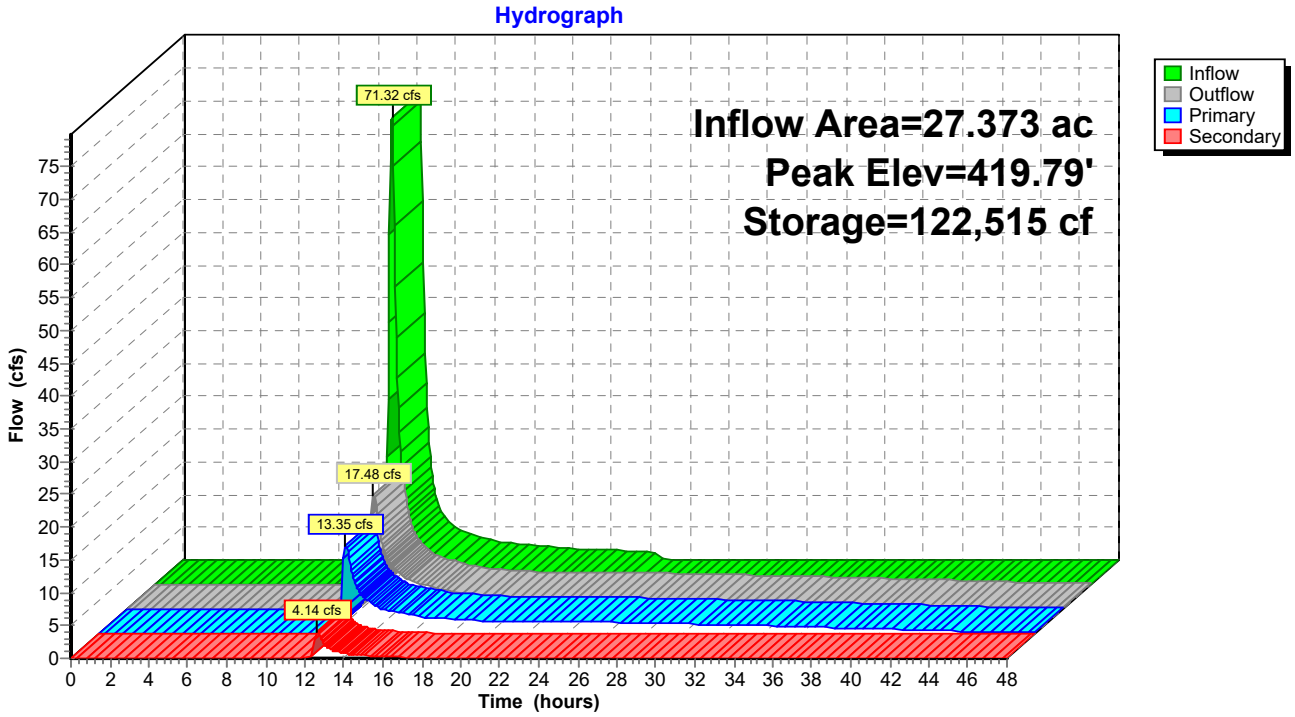
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
414.00	15,198	0	0
415.00	17,220	16,209	16,209
416.00	19,266	18,243	34,452
417.00	21,338	20,302	54,754
418.00	23,435	22,387	77,141
419.00	25,558	24,497	101,637
420.00	27,705	26,632	128,269

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	**12.0" Round Culvert X 2.00** L= 70.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 414.00' / 413.50' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	415.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	419.50'	**48.0" Horiz. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Secondary	419.50'	**10.0' long + 3.0 '/' SideZ x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=13.73 cfs @ 12.66 hrs HW=419.79' (Free Discharge)
└**1=Culvert** (Inlet Controls 13.73 cfs @ 8.74 fps)
└**2=Orifice/Grate** (Passes < 2.01 cfs potential flow)
└**3=Orifice/Grate** (Passes < 12.77 cfs potential flow)

Secondary OutFlow Max=4.07 cfs @ 12.66 hrs HW=419.79' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 4.07 cfs @ 1.30 fps)

Pond 56.1P: 56.1P

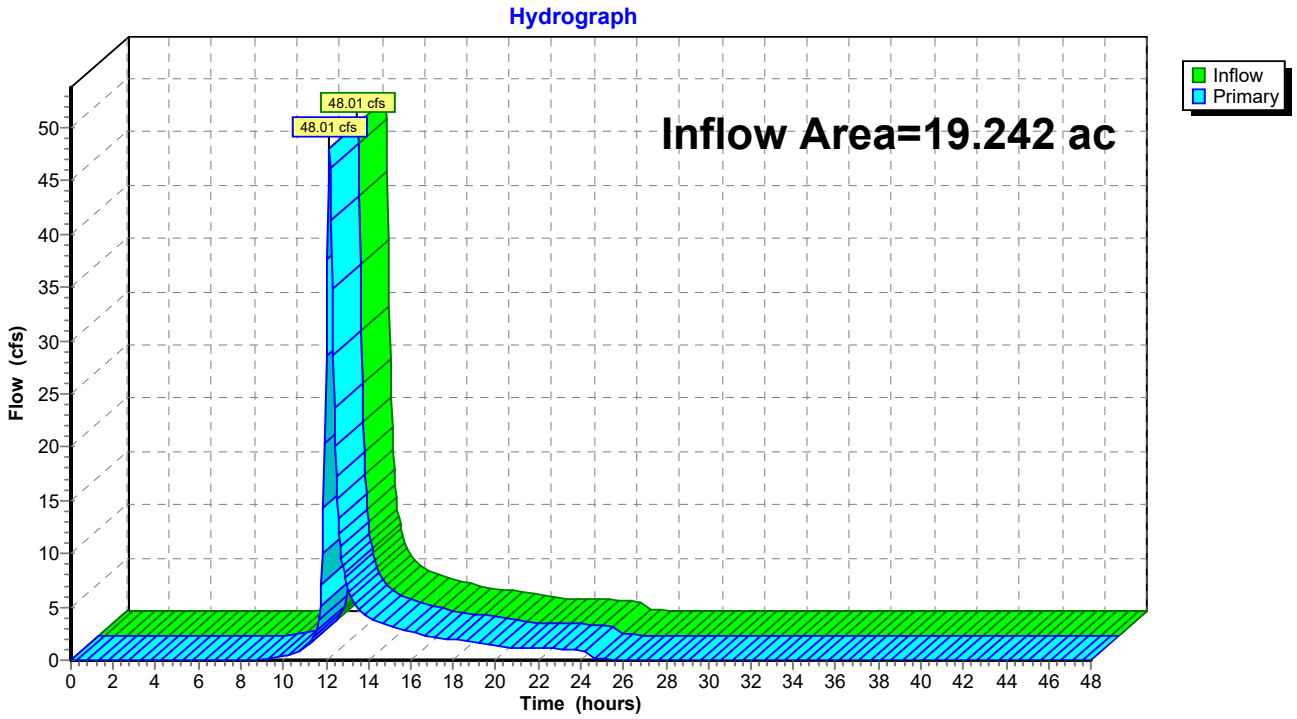


Summary for Link SP25:

Inflow Area = 19.242 ac, 0.51% Impervious, Inflow Depth = 2.75" for 100-year event
Inflow = 48.01 cfs @ 12.16 hrs, Volume= 4.415 af
Primary = 48.01 cfs @ 12.16 hrs, Volume= 4.415 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP25:

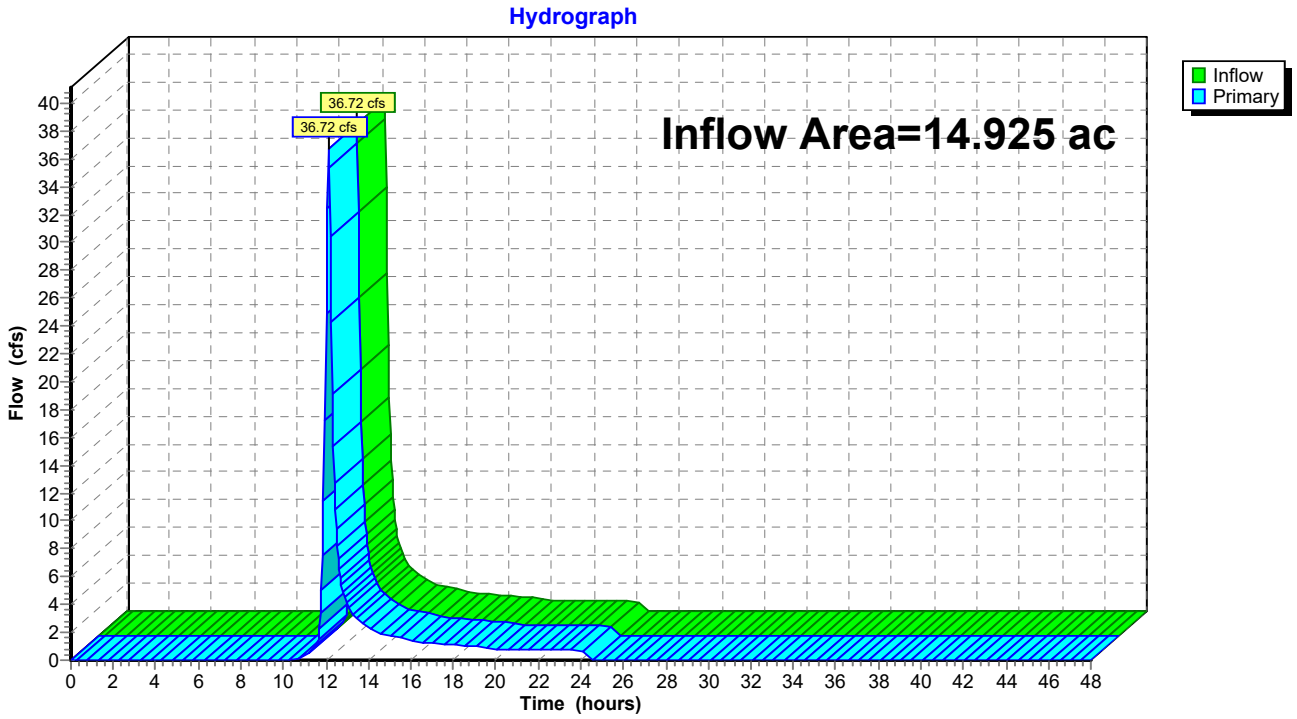


Summary for Link SP26:

Inflow Area = 14.925 ac, 5.39% Impervious, Inflow Depth = 2.15" for 100-year event
Inflow = 36.72 cfs @ 12.11 hrs, Volume= 2.674 af
Primary = 36.72 cfs @ 12.11 hrs, Volume= 2.674 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP26:

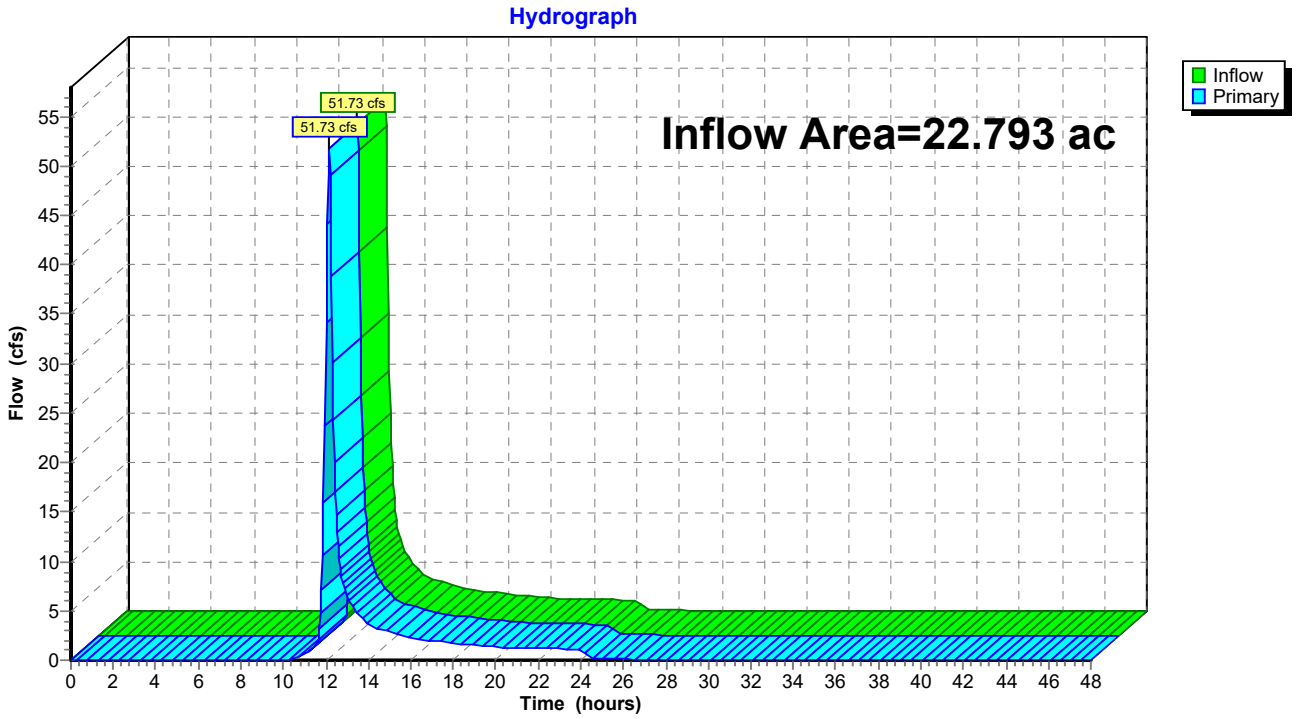


Summary for Link SP27:

Inflow Area = 22.793 ac, 1.95% Impervious, Inflow Depth = 2.19" for 100-year event
Inflow = 51.73 cfs @ 12.15 hrs, Volume= 4.169 af
Primary = 51.73 cfs @ 12.15 hrs, Volume= 4.169 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP27:

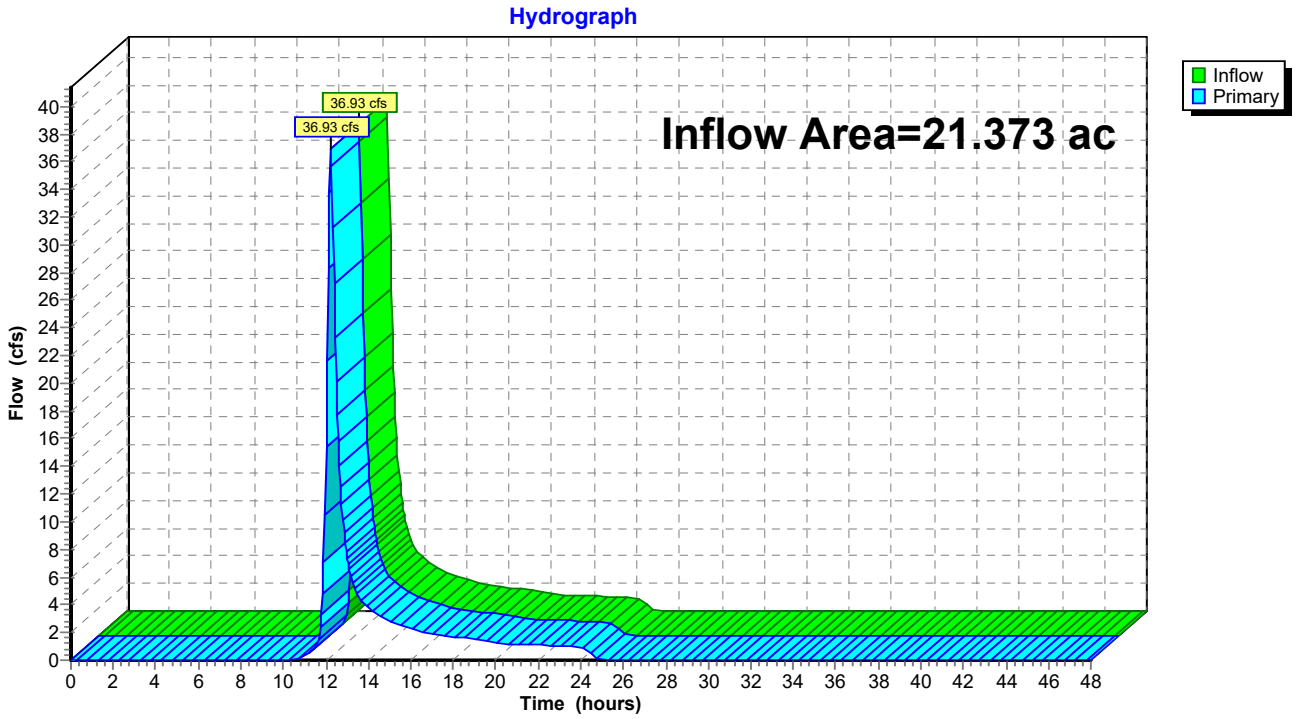


Summary for Link SP28:

Inflow Area = 21.373 ac, 0.53% Impervious, Inflow Depth = 2.13" for 100-year event
Inflow = 36.93 cfs @ 12.23 hrs, Volume= 3.787 af
Primary = 36.93 cfs @ 12.23 hrs, Volume= 3.787 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP28:

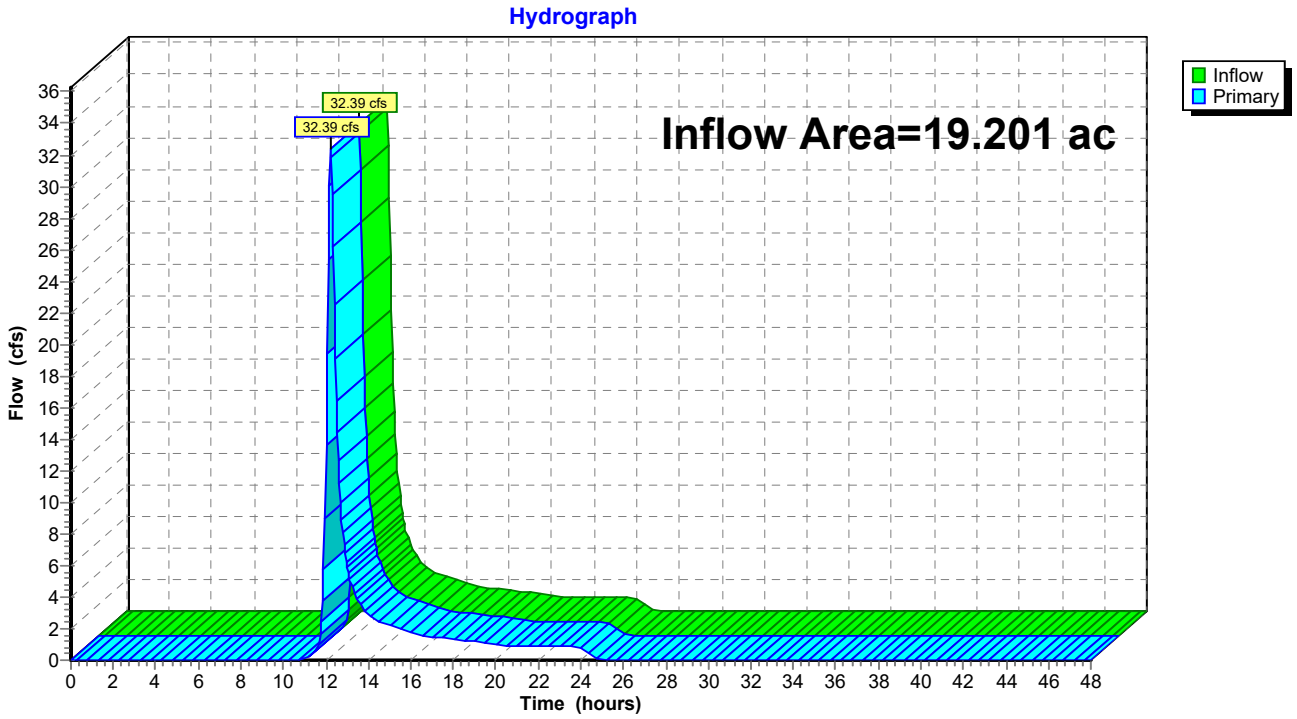


Summary for Link SP29:

Inflow Area = 19.201 ac, 1.25% Impervious, Inflow Depth = 1.90" for 100-year event
Inflow = 32.39 cfs @ 12.22 hrs, Volume= 3.042 af
Primary = 32.39 cfs @ 12.22 hrs, Volume= 3.042 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP29:

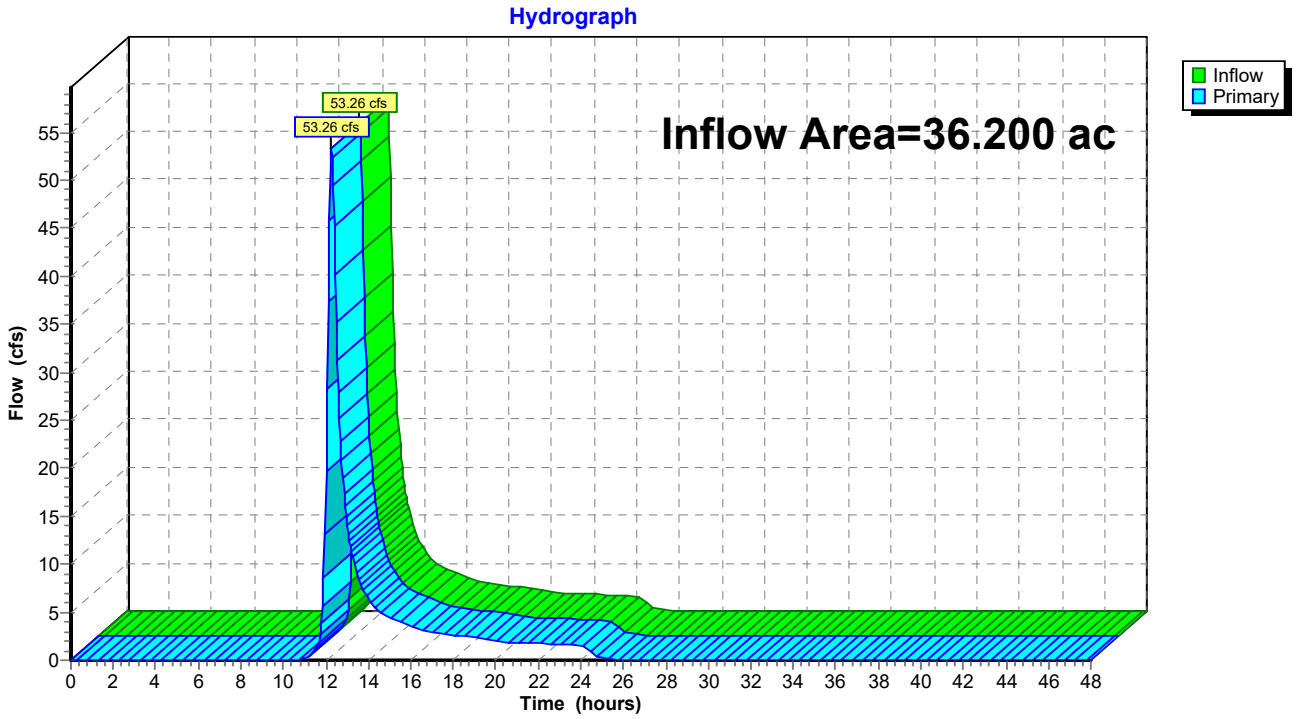


Summary for Link SP30:

Inflow Area = 36.200 ac, 1.23% Impervious, Inflow Depth = 1.98" for 100-year event
Inflow = 53.26 cfs @ 12.26 hrs, Volume= 5.976 af
Primary = 53.26 cfs @ 12.26 hrs, Volume= 5.976 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP30:

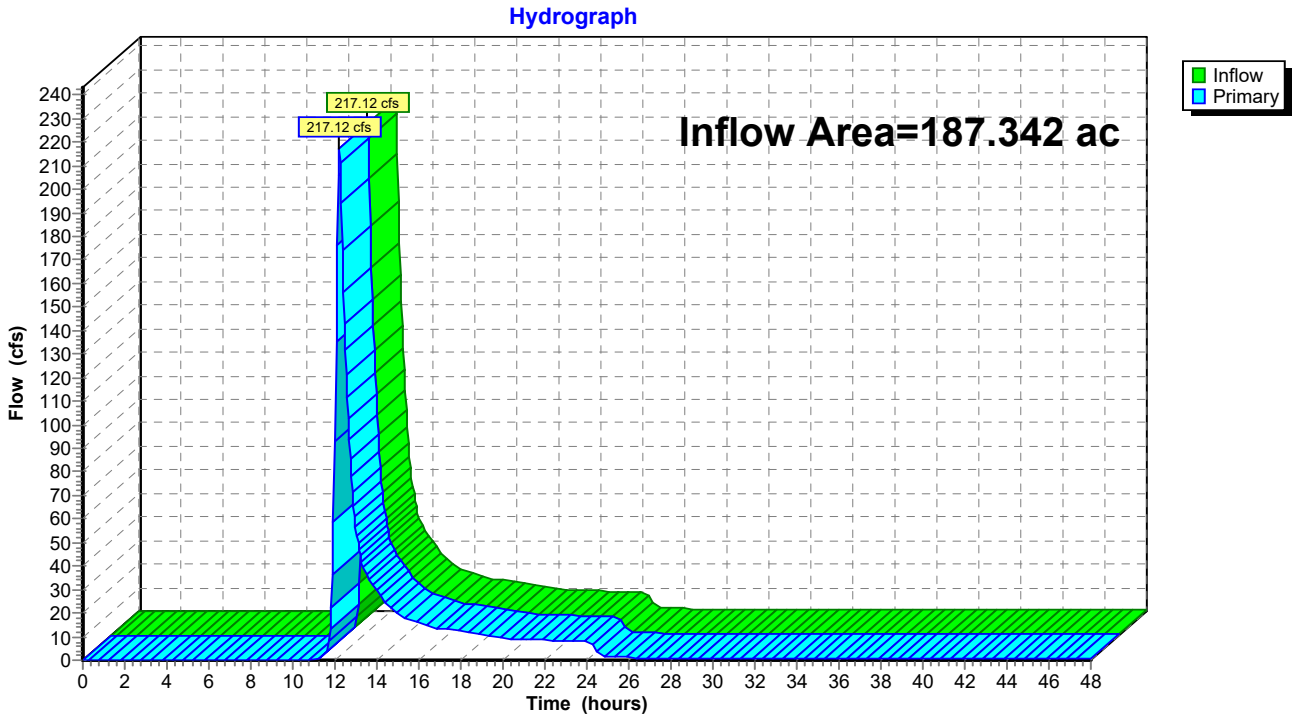


Summary for Link SP34:

Inflow Area = 187.342 ac, 1.98% Impervious, Inflow Depth > 1.73" for 100-year event
Inflow = 217.12 cfs @ 12.21 hrs, Volume= 26.981 af
Primary = 217.12 cfs @ 12.21 hrs, Volume= 26.981 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP34:

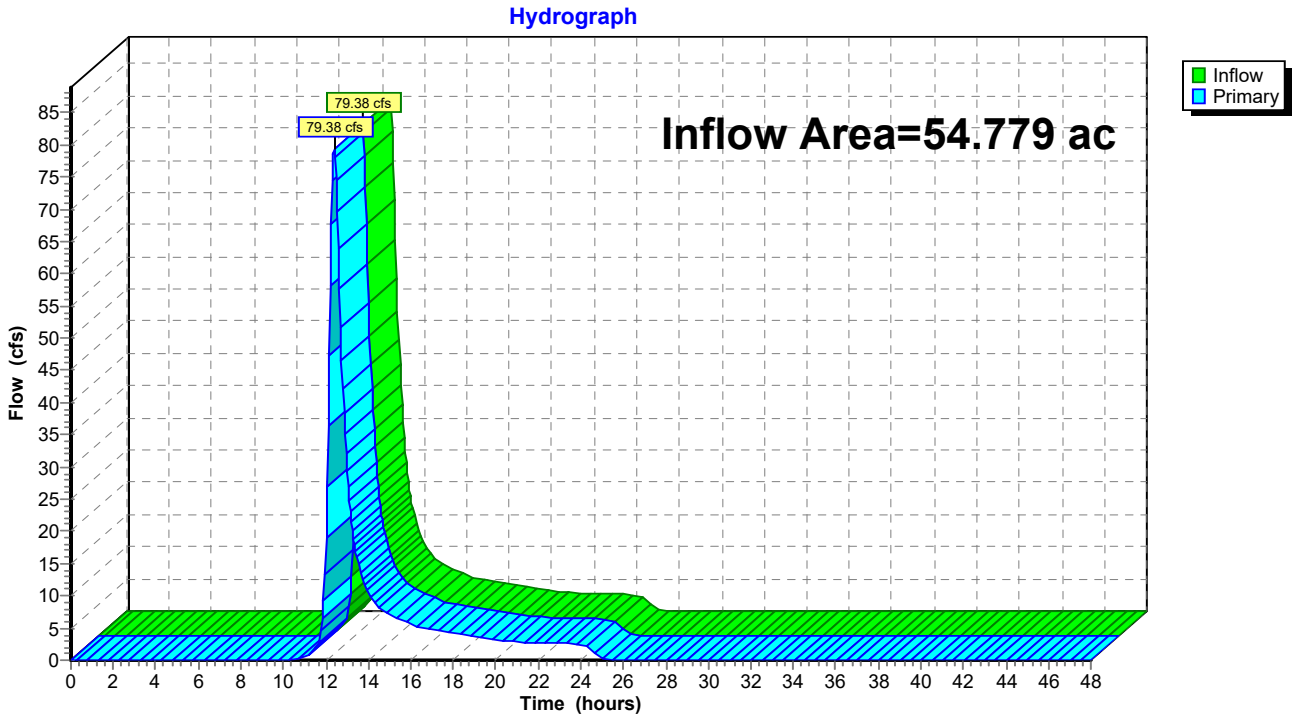


Summary for Link SP35:

Inflow Area = 54.779 ac, 2.01% Impervious, Inflow Depth = 2.15" for 100-year event
Inflow = 79.38 cfs @ 12.39 hrs, Volume= 9.814 af
Primary = 79.38 cfs @ 12.39 hrs, Volume= 9.814 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP35:

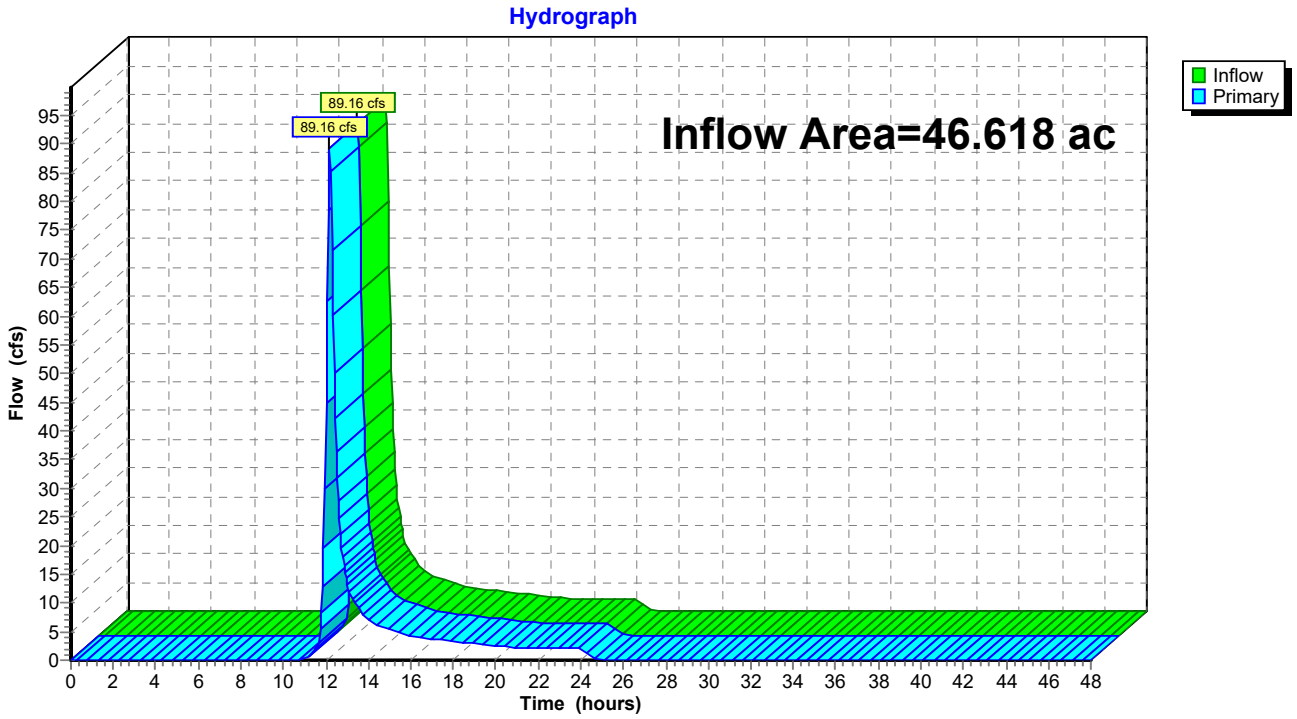


Summary for Link SP36:

Inflow Area = 46.618 ac, 0.00% Impervious, Inflow Depth = 1.98" for 100-year event
Inflow = 89.16 cfs @ 12.18 hrs, Volume= 7.704 af
Primary = 89.16 cfs @ 12.18 hrs, Volume= 7.704 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP36:

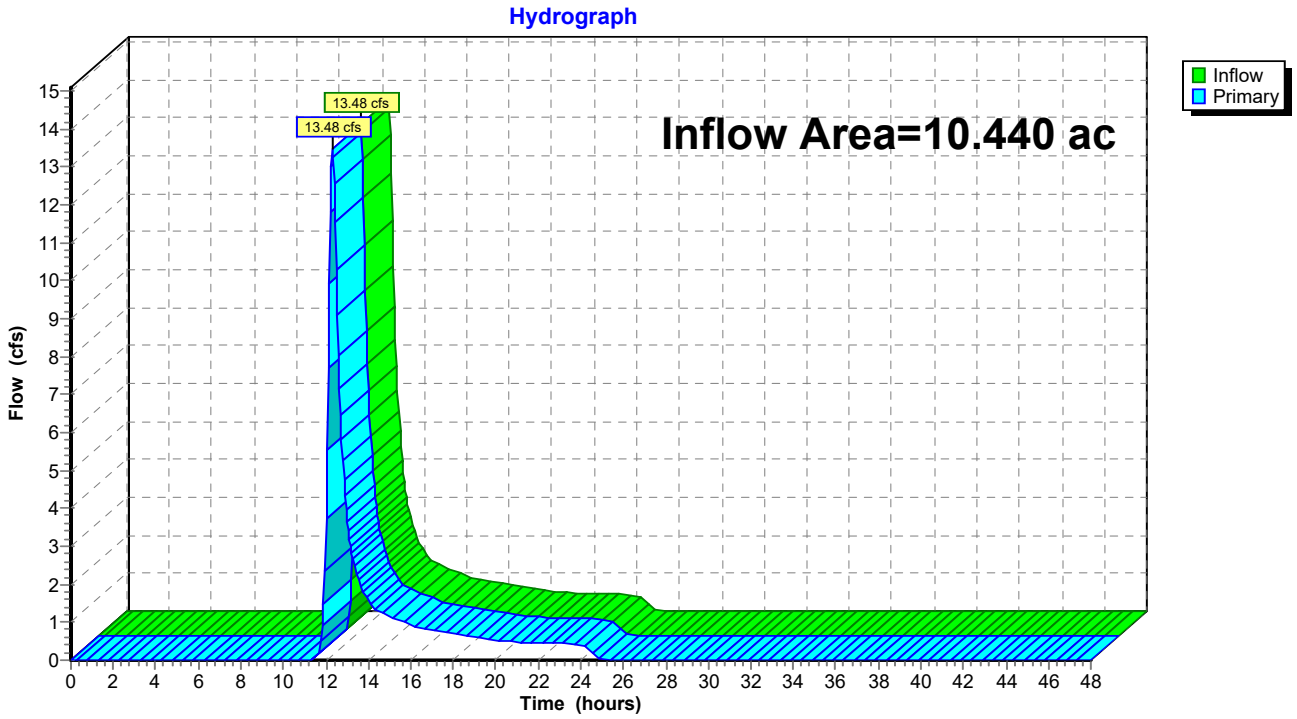


Summary for Link SP37:

Inflow Area = 10.440 ac, 5.80% Impervious, Inflow Depth = 1.74" for 100-year event
Inflow = 13.48 cfs @ 12.31 hrs, Volume= 1.515 af
Primary = 13.48 cfs @ 12.31 hrs, Volume= 1.515 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP37:

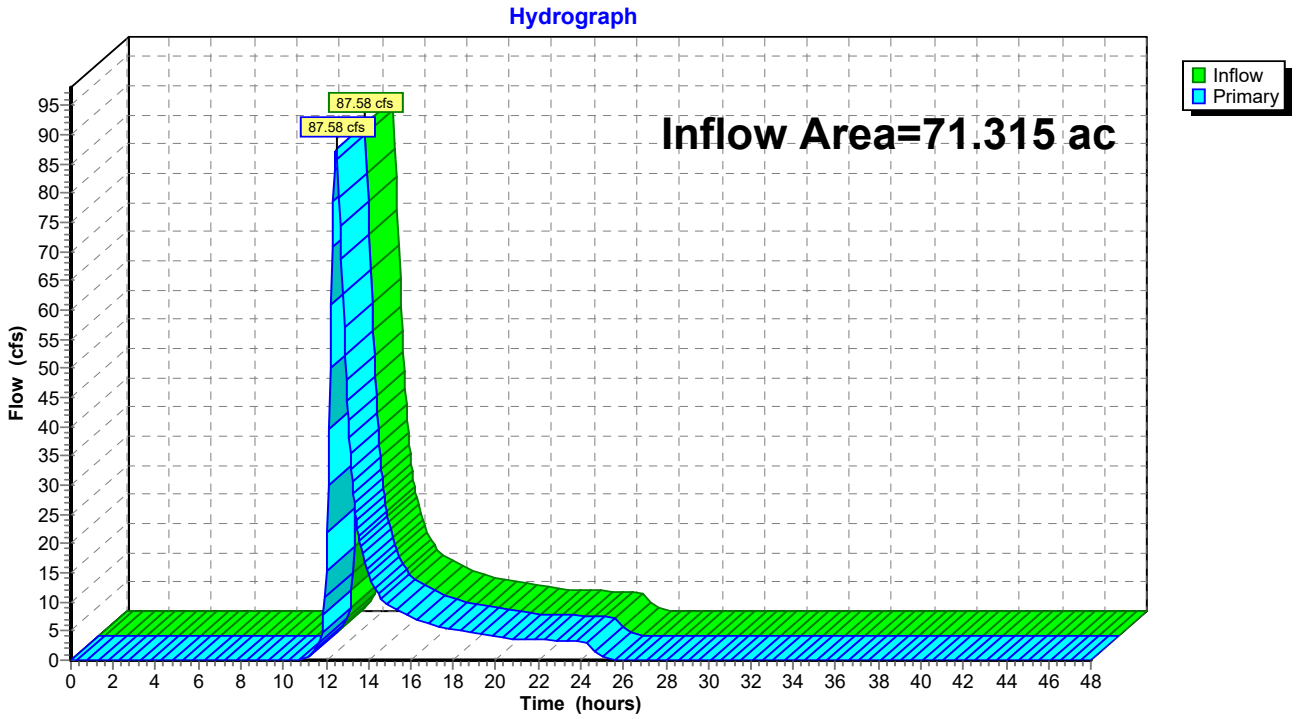


Summary for Link SP38:

Inflow Area = 71.315 ac, 1.11% Impervious, Inflow Depth = 2.07" for 100-year event
Inflow = 87.58 cfs @ 12.49 hrs, Volume= 12.278 af
Primary = 87.58 cfs @ 12.49 hrs, Volume= 12.278 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP38:

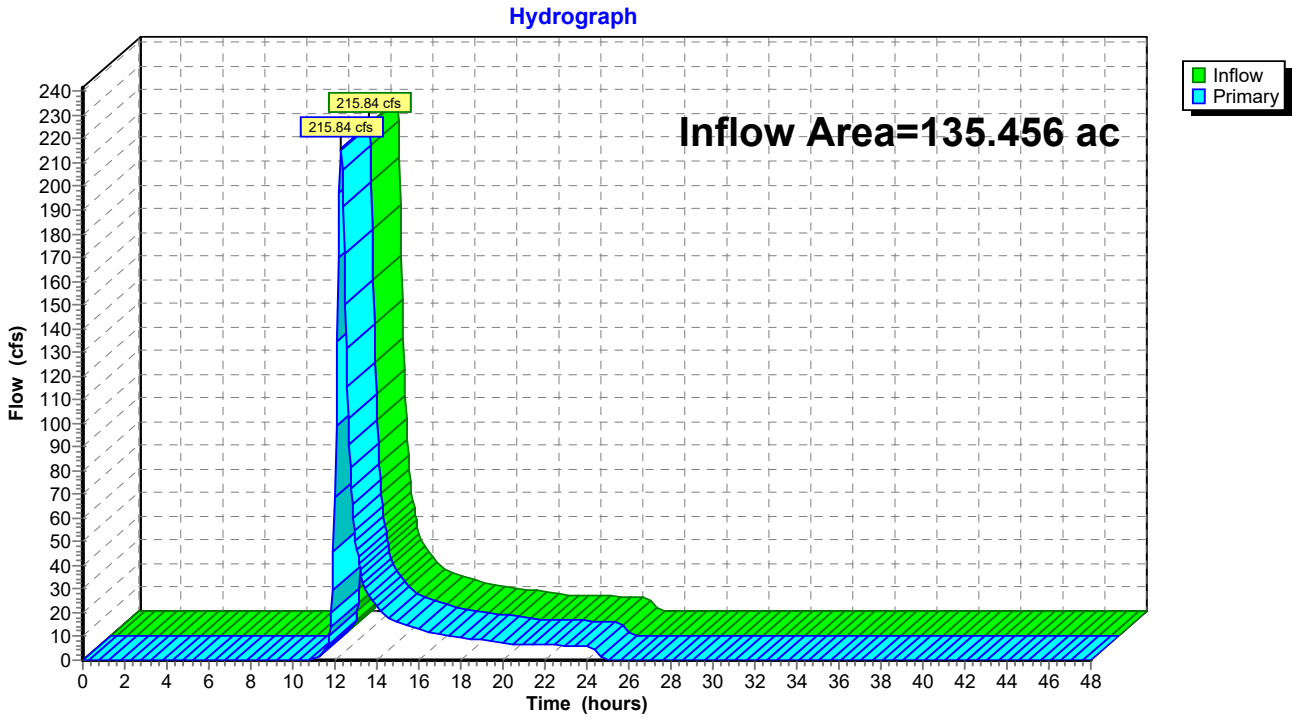


Summary for Link SP39:

Inflow Area = 135.456 ac, 1.64% Impervious, Inflow Depth = 1.99" for 100-year event
Inflow = 215.84 cfs @ 12.29 hrs, Volume= 22.496 af
Primary = 215.84 cfs @ 12.29 hrs, Volume= 22.496 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP39:

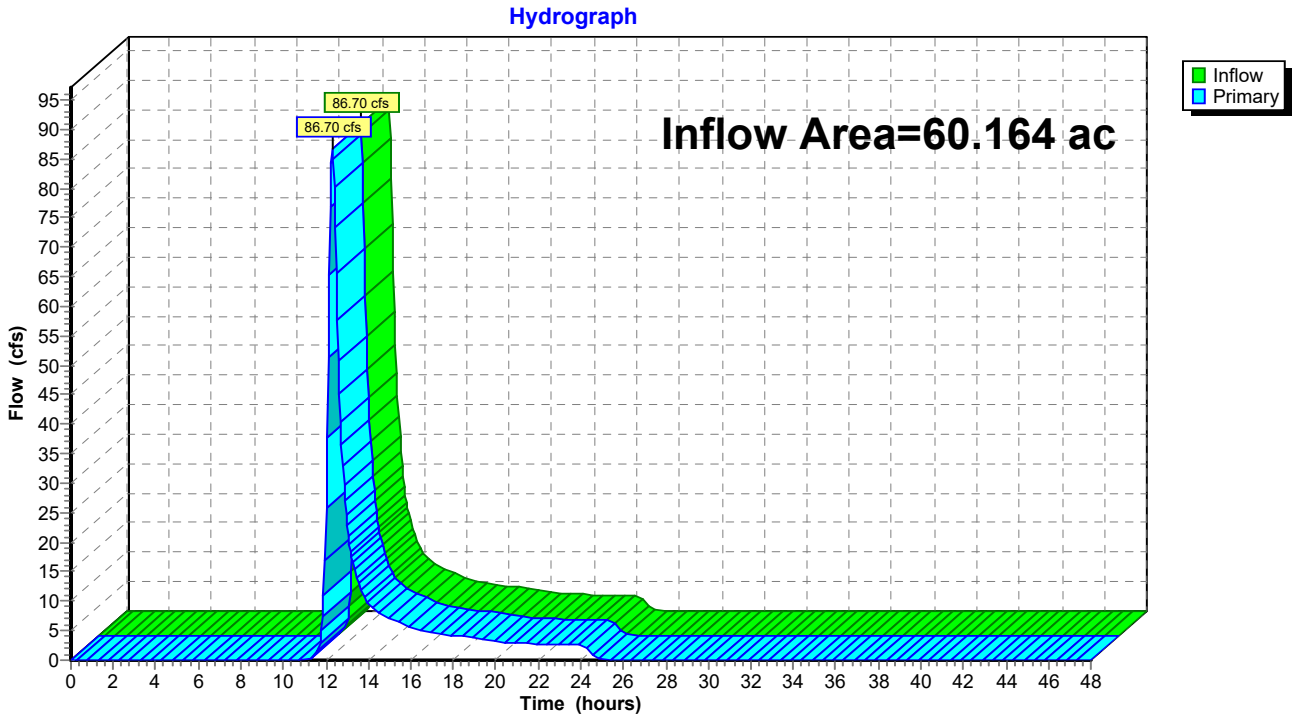


Summary for Link SP41:

Inflow Area = 60.164 ac, 0.00% Impervious, Inflow Depth = 1.90" for 100-year event
Inflow = 86.70 cfs @ 12.30 hrs, Volume= 9.532 af
Primary = 86.70 cfs @ 12.30 hrs, Volume= 9.532 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP41:

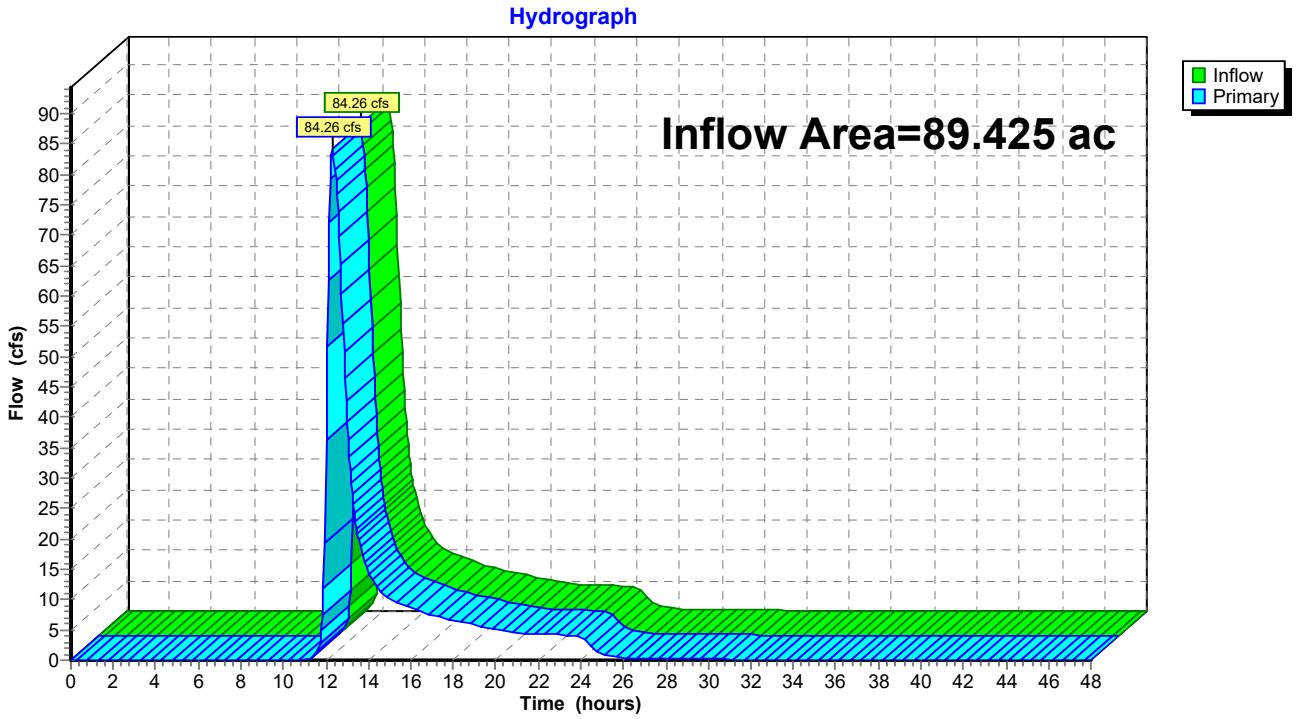


Summary for Link SP42:

Inflow Area = 89.425 ac, 0.58% Impervious, Inflow Depth > 1.81" for 100-year event
Inflow = 84.26 cfs @ 12.31 hrs, Volume= 13.525 af
Primary = 84.26 cfs @ 12.31 hrs, Volume= 13.525 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP42:

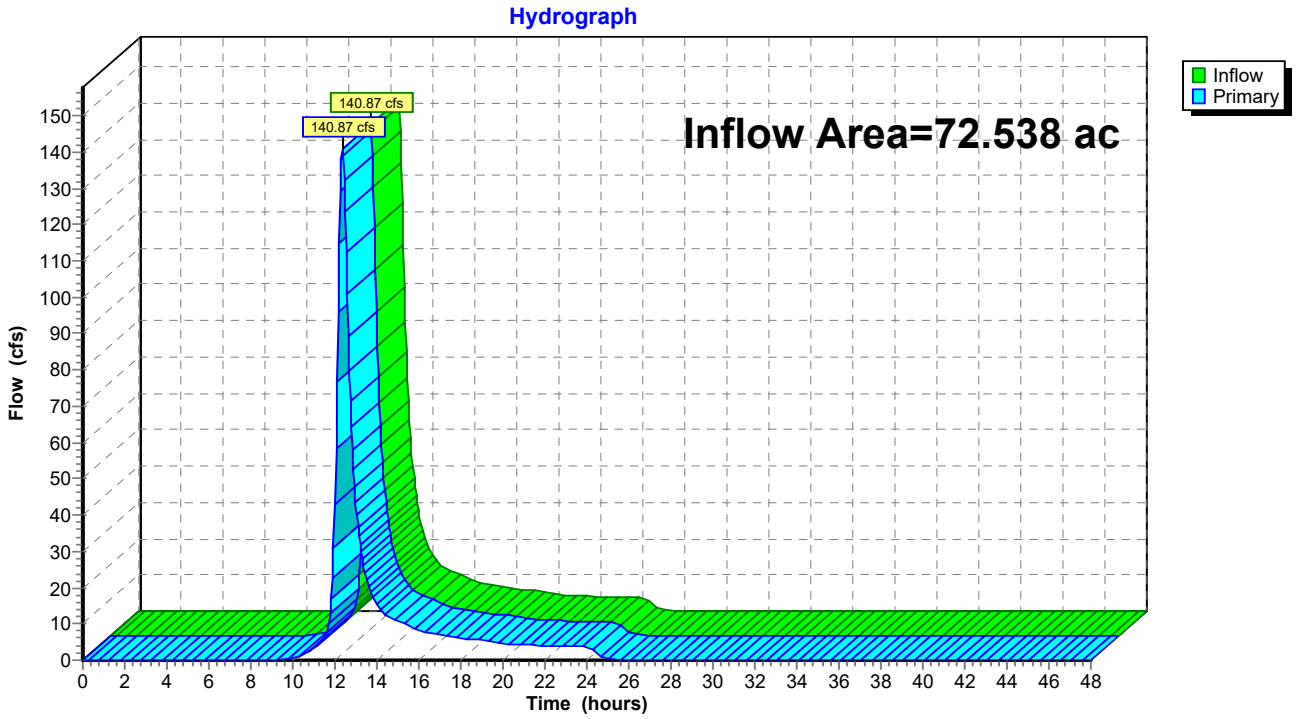


Summary for Link SP48:

Inflow Area = 72.538 ac, 2.48% Impervious, Inflow Depth = 2.67" for 100-year event
Inflow = 140.87 cfs @ 12.35 hrs, Volume= 16.169 af
Primary = 140.87 cfs @ 12.35 hrs, Volume= 16.169 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP48:

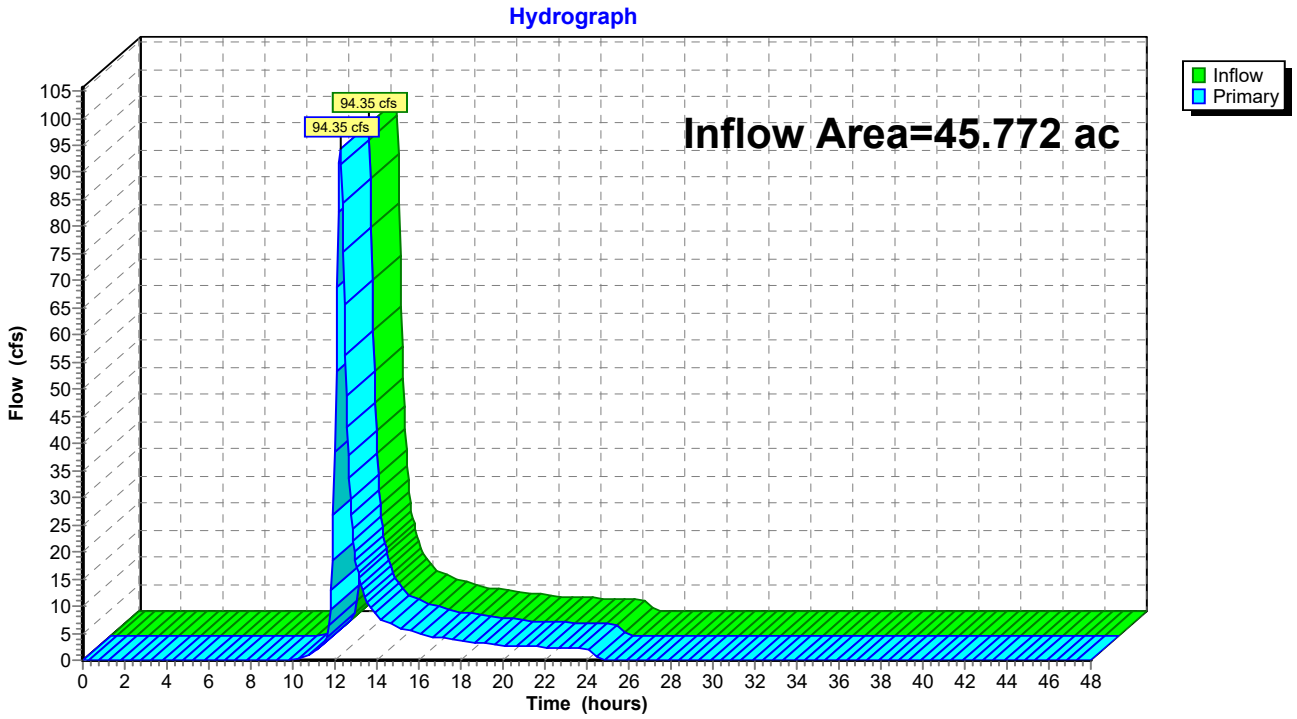


Summary for Link SP50:

Inflow Area = 45.772 ac, 1.25% Impervious, Inflow Depth = 2.41" for 100-year event
Inflow = 94.35 cfs @ 12.25 hrs, Volume= 9.184 af
Primary = 94.35 cfs @ 12.25 hrs, Volume= 9.184 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP50:

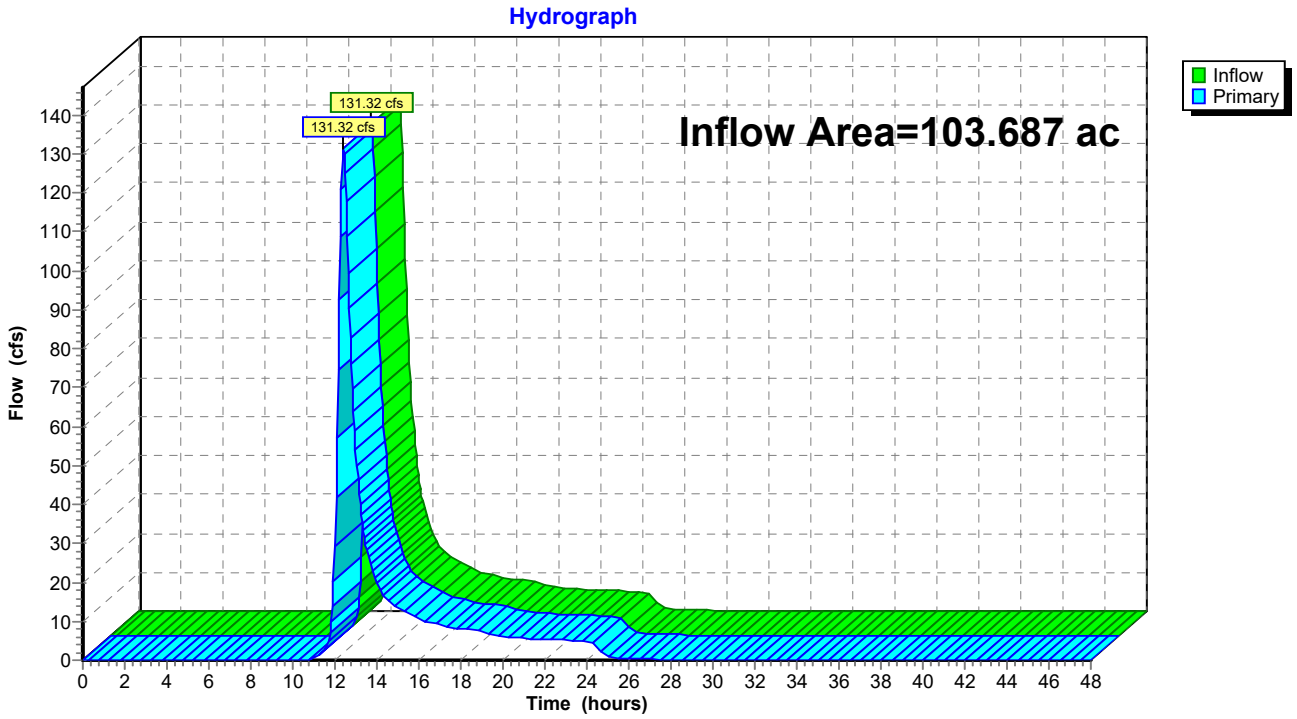


Summary for Link SP51:

Inflow Area = 103.687 ac, 0.70% Impervious, Inflow Depth = 2.06" for 100-year event
Inflow = 131.32 cfs @ 12.41 hrs, Volume= 17.766 af
Primary = 131.32 cfs @ 12.41 hrs, Volume= 17.766 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP51:

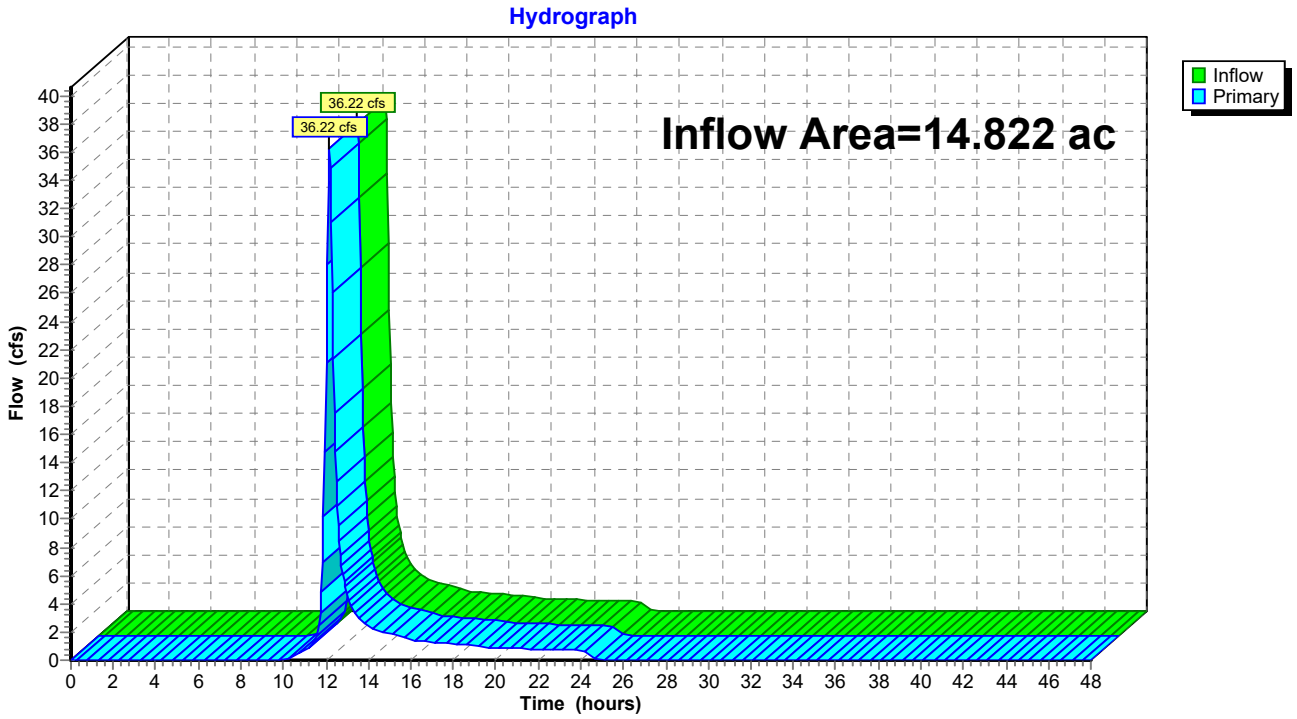


Summary for Link SP52:

Inflow Area = 14.822 ac, 2.79% Impervious, Inflow Depth = 2.38" for 100-year event
Inflow = 36.22 cfs @ 12.16 hrs, Volume= 2.945 af
Primary = 36.22 cfs @ 12.16 hrs, Volume= 2.945 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP52:

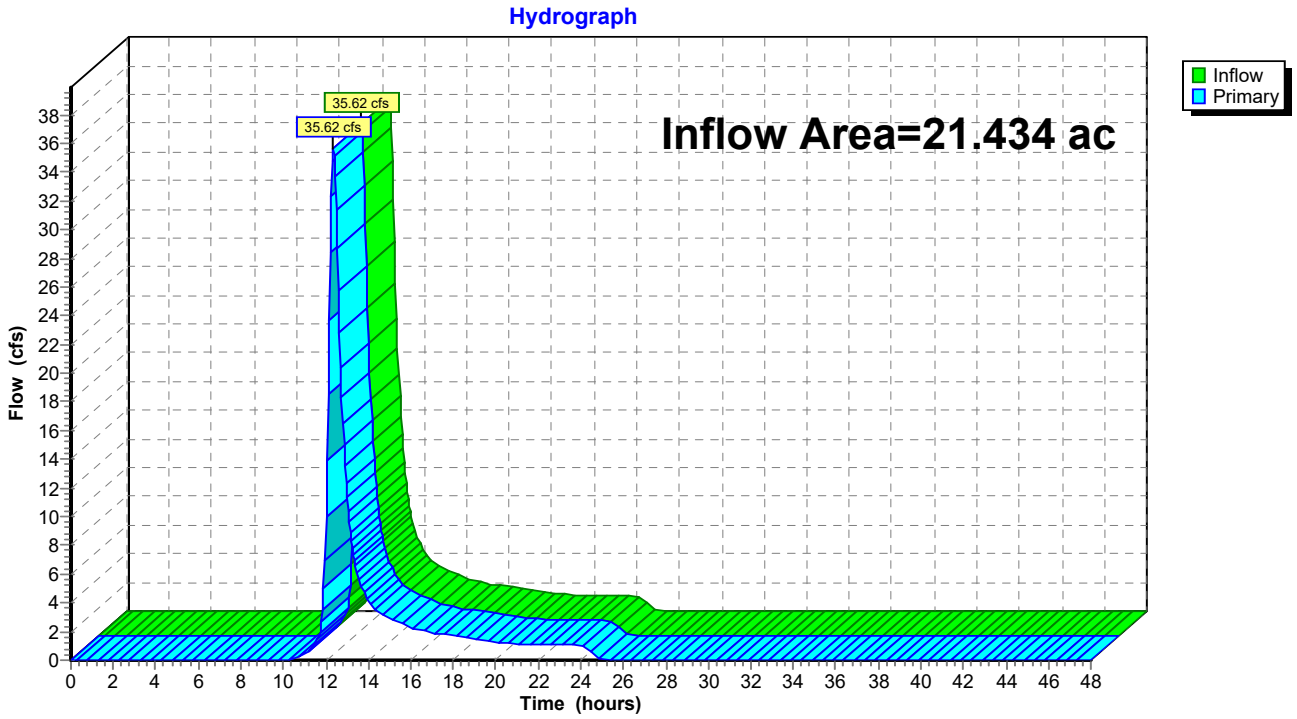


Summary for Link SP53:

Inflow Area = 21.434 ac, 1.80% Impervious, Inflow Depth = 2.32" for 100-year event
Inflow = 35.62 cfs @ 12.36 hrs, Volume= 4.145 af
Primary = 35.62 cfs @ 12.36 hrs, Volume= 4.145 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP53:

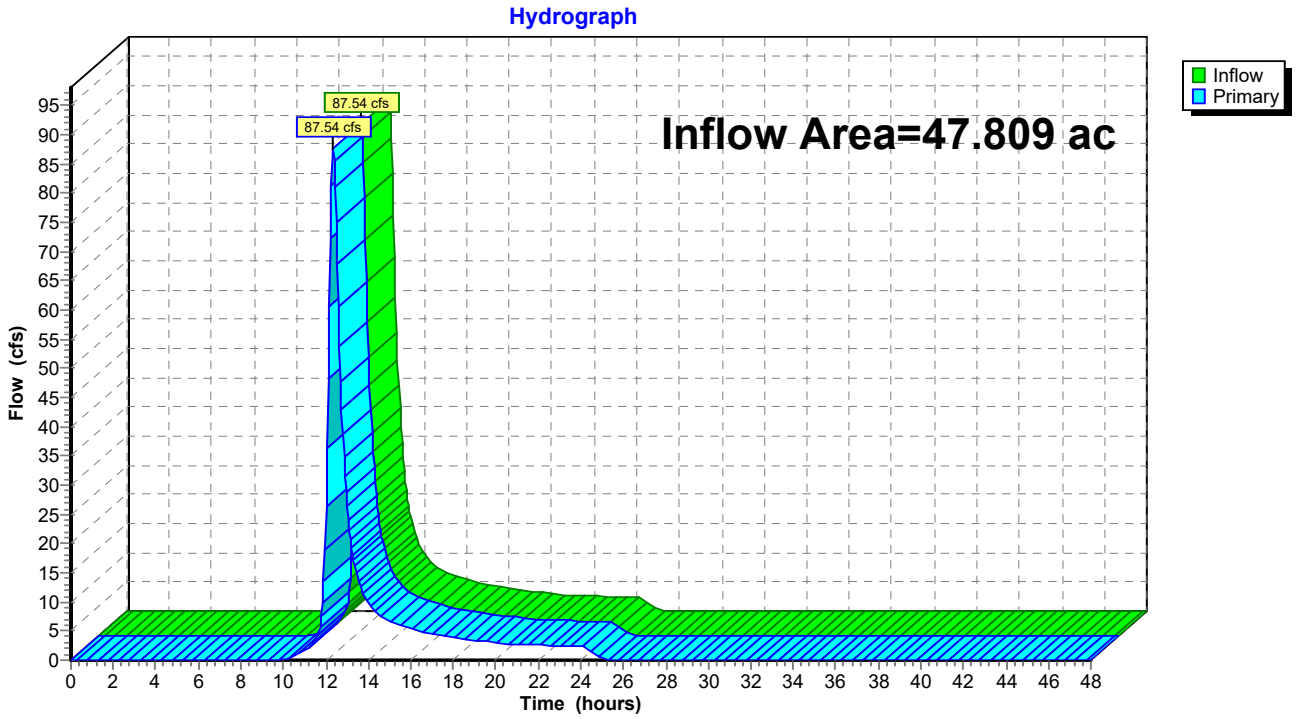


Summary for Link SP54:

Inflow Area = 47.809 ac, 7.82% Impervious, Inflow Depth = 2.50" for 100-year event
Inflow = 87.54 cfs @ 12.34 hrs, Volume= 9.943 af
Primary = 87.54 cfs @ 12.34 hrs, Volume= 9.943 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP54:

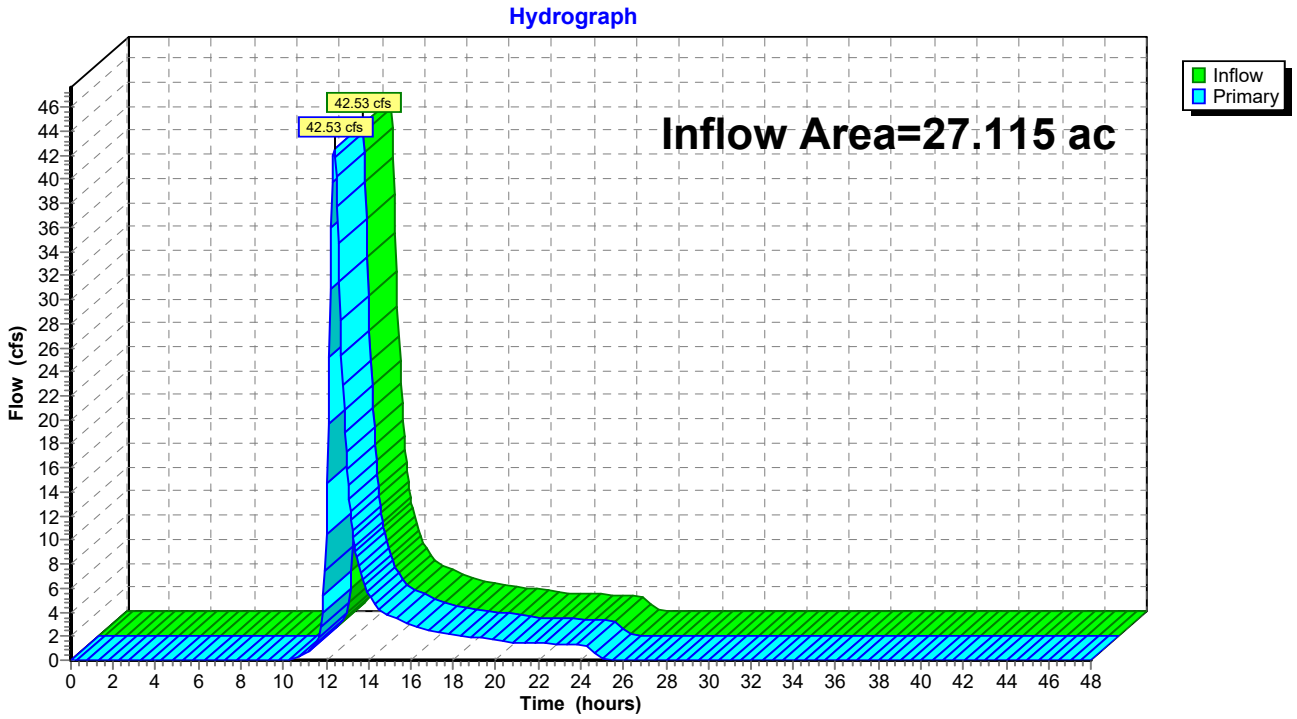


Summary for Link SP55:

Inflow Area = 27.115 ac, 0.71% Impervious, Inflow Depth = 2.32" for 100-year event
Inflow = 42.53 cfs @ 12.40 hrs, Volume= 5.244 af
Primary = 42.53 cfs @ 12.40 hrs, Volume= 5.244 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP55:

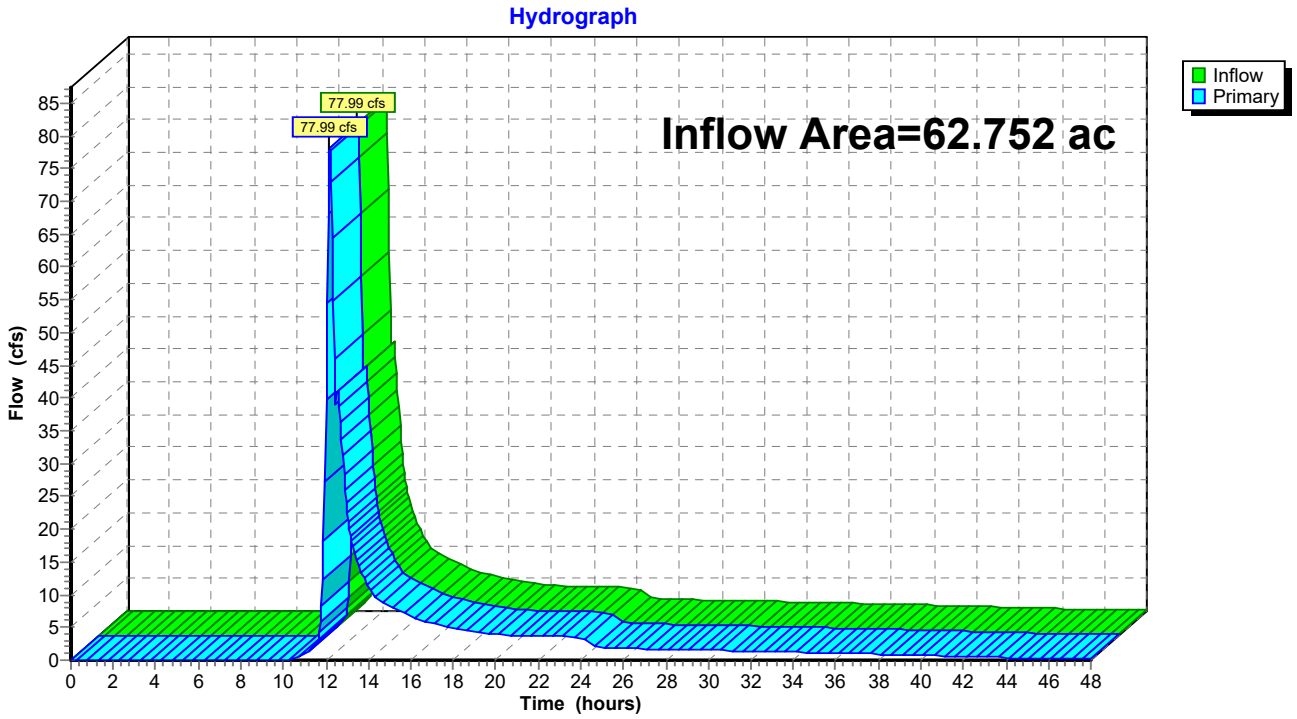


Summary for Link SP56:

Inflow Area = 62.752 ac, 0.00% Impervious, Inflow Depth > 2.30" for 100-year event
Inflow = 77.99 cfs @ 12.18 hrs, Volume= 12.022 af
Primary = 77.99 cfs @ 12.18 hrs, Volume= 12.022 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP56:



Appendix M – SWPPP Amendments

The Owner/Operator shall have a Qualified Professional amend the SWPPP when one or more of the following occur:

- There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
- The SWPPP proves to be ineffective in:
    - Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
    - Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and

Additionally, the SWPPP shall be amended to identify any new Contractor or Subcontractor that will implement any measure of the SWPPP.

The following information should be documented in this section:

- Dates when major grading activities occur;
- Dates when construction activities temporarily or permanently cease on a portion of the Facility Site; and
- Dates when stabilization measures (temporary and permanent) are initiated.

AMENDMENTS TO STORMWATER POLLUTION PREVENTION PLAN

Date	Person Amending SWPPP (Name and Title)	Page(s), Figure(s), or Plan(s) Where Amendments Made	Details of Amendment

Date	Person Amending SWPPP (Name and Title)	Page(s), Figure(s), or Plan(s) Where Amendments Made	Details of Amendment

Appendix N – SWPPP Inspection Reports

- Blank SWPPP Inspection Form -

- Completed SWPPP Inspection Reports -

Appendix N – Blank SWPPP Inspection Form

General Project Information					
Project Name:					
SPDES Permit Number:				**Type of Construction Activities Being Completed:**	
Date of Inspection:					
Inspector's Name:					
Time On Site:				**Inspection Type:**	
Time Off Site:					
General Project Notes:					
SWPPP Amendment Required:	☐ Yes	☐ No	**If yes, describe:**		

Weather Information		
Has there been a storm event since the last inspection?	☒ Yes	☐ No
If yes, what was the approx. amount of precipitation (inches) since the last inspection:		
Weather conditions at the time of inspection?	Temperature:	°F
☐ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Snow ☐ Fog ☐ High Winds		
Does the Project Site discharge to natural surface waterbodies located within or immediately adjacent to the Project area?	☐ Yes	☐ No
If yes, describe:		
Were there any discharges observed at the time of inspection?	☐ Yes	☐ No
If yes, were sediment laden discharges observed?	☐ Yes	☐ No
Describe:		
If yes, was erosion or sedimentation observed at the discharge location?	☐ Yes	☐ No
Describe:		
Soil Condition:		
Were areas of soil disturbance observed at the time of inspection?	☐ Yes	☐ No
If yes, describe:		

Maintaining Water Quality

Water Quality Observations	Yes	No	N/A
Is there an increase in turbidity causing a substantial visual contrast to natural conditions?	☐	☐	☐
Is there residue from oil and floating substances, visible oil film, or grease or globules?	☐	☐	☐
Are all disturbances within the approved limits, as outlined on the plans?	☐	☐	☐
Have receiving waterbodies and/or wetland been impacted by the Project?	☐	☐	☐
Are the concrete washout facilities located a minimum of 100 feet from sensitive areas and properly maintained?	☐	☐	☐
Comments:			

General Housekeeping

Site Conditions	Yes	No	N/A
Is construction site litter and debris appropriately managed?	☐	☐	☐
Are facilities and equipment necessary for implementation of erosion and sediment controls in working and/or properly maintained?	☐	☐	☐
Is construction impacting adjacent properties?	☐	☐	☐
Is dust adequately controlled?	☐	☐	☐
Comments:			

Runoff Control Practices

Temporary Stream Crossings	Yes	No	N/A
Are the maximum necessary diameter pipes installed to span stream without dredging?	☐	☐	☐
Is non-woven geotextile fabric installed beneath the approaches?	☐	☐	☐
Is fill composed of aggregate (no earthen or soil material)?	☐	☐	☐
Is the rock on approaches clean enough to remove mud/sediment from vehicles and prevent sediment from entering the stream during high flows?	☐	☐	☐
Comments:			

Excavation Dewatering	Yes	No	N/A
Are upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per the Construction Drawings?	☐	☐	☐
Is clean water from the upstream pool being pumped to the downstream pool?	☐	☐	☐
Is sediment laden water from the work area being discharged to a sediment trapping device?	☐	☐	☐
Is the water discharging from the sediment trapping device clear and free of sediment?	☐	☐	☐
Does the constructed upstream berm have a minimum of one-foot freeboard?	☐	☐	☐
Comments:			

Flow Spreader(s)	Yes	No	N/A
Is the flow spreader installed per the Construction Drawings?	☐	☐	☐
Was the flow spreader constructed on undisturbed soil, not on fill?	☐	☐	☐
Does the flow spreader receive only clear, non-sediment laden flows?	☐	☐	☐
Does the discharge from the flow spreader sheet flow out of the spreader without erosion downstream?	☐	☐	☐
Comments:			

Interceptor Dikes and Swales	Yes	No	N/A
Is the dike/swale installed per the Construction Drawings?	☐	☐	☐
Has the dike/swale been stabilized by geotextile fabric, seed, and/or mulch?	☐	☐	☐
Was erosion observed within the dike/swale?	☐	☐	☐
Is sediment-laden runoff directed to a sediment trapping device?	☐	☐	☐
Comments:			

Stone Check Dam(s)	Yes	No	N/A
Are the check dams in good condition (rocks in place and no ponding behind the dams)?	☐	☐	☐
Has geotextile fabric been placed beneath the rock fill?	☐	☐	☐
Was sediment accumulation greater than 50% of the design capacity?	☐	☐	☐
Was erosion observed within the channel?	☐	☐	☐
Comments:			

Rock Outlet Protection	Yes	No	N/A
Is the rock outlet protection installed per approved plans?	☐	☐	☐
Was the outlet protection installed concurrently with pipe installation?	☐	☐	☐
Have the rocks been displaced?	☐	☐	☐
Is the sediment accumulation 0% of the design capacity?	☐	☐	☐
Comments:			

Soil Stabilization

Topsoil and Spoil Stockpiles	Yes	No	N/A
Are stockpiles properly stabilized and contained?	☐	☐	☐
Are sediment control installed at the toe of the slope?	☐	☐	☐
Are idle soil stockpiles are stabilized with vegetation and/or mulch?	☐	☐	☐
Comments:			

Revegetation	Yes	No	N/A
Has temporary seed and mulch been applied to idle areas?	☐	☐	☐
Has a minimum of 4 inches of topsoil been applied under permanent seeding areas?	☐	☐	☐
Comments:			

Sediment Control Practices

Stabilized Construction Entrance(s)	Yes	No	N/A
Is the entrance installed per the Construction Drawings?	☐	☐	☐
Is the stone clean enough to effectively remove mud/sediment from vehicle tires?	☐	☐	☐
Does all traffic enter and exit the site at the stabilized construction entrance(s)?	☐	☐	☐
Is adequate drainage provided to prevent ponding at the entrance(s)?	☐	☐	☐
Comments:			

Linear Sediment Control Barriers	Yes	No	N/A
Are the sediment controls installed along the contour, 10 feet from toe of slope and not within conveyance channels?	☐	☐	☐
Are silt fence joints constructed by wrapping the two ends together for continuous support?	☐	☐	☐
Is the silt fence fabric is buried a minimum of 6 inches?	☐	☐	☐
Are the posts stable and the fabric is tight and without rips/frayed areas?	☐	☐	☐
Does the compost filter sock have good contact with the soil?	☐	☐	☐
Is the sediment accumulation 0% of the design capacity?	☐	☐	☐
Comments:			

Storm Drain Inlet Protection	Yes	No	N/A
Is the inlet protection installed in accordance with the Construction Drawings?	☐	☐	☐
Is the inlet protection structurally sound?	☐	☐	☐
Are the posts stable and the fabric is tight and without rips/frayed areas?	☐	☐	☐
Is the sediment accumulation greater than 50% of the design capacity?	☐	☐	☐
Comments:			

Temporary Sediment Basin	Yes	No	N/A
Is the basin and outlet structure constructed per the Construction Drawings?	☐	☐	☐
Are the basin side slopes stabilized?	☐	☐	☐
Was the drainage structure flushed and basin surface restored upon removal of the sediment basin facility?	☐	☐	☐
Is the sediment basin dewatering at an appropriate rate?	☐	☐	☐
Is the sediment accumulation greater than 50% of the design capacity?	☐	☐	☐
Comments:			

Temporary Sediment Trap	Yes	No	N/A
Is the outlet structure constructed per the Construction Drawings?	☐	☐	☐
Has geotextile fabric been placed beneath the rock fill?	☐	☐	☐
Are the sediment trap slopes and disturbed areas are stabilized?	☐	☐	☐
Is the sediment accumulation greater than 50% of the design capacity?	☐	☐	☐
Comments:			

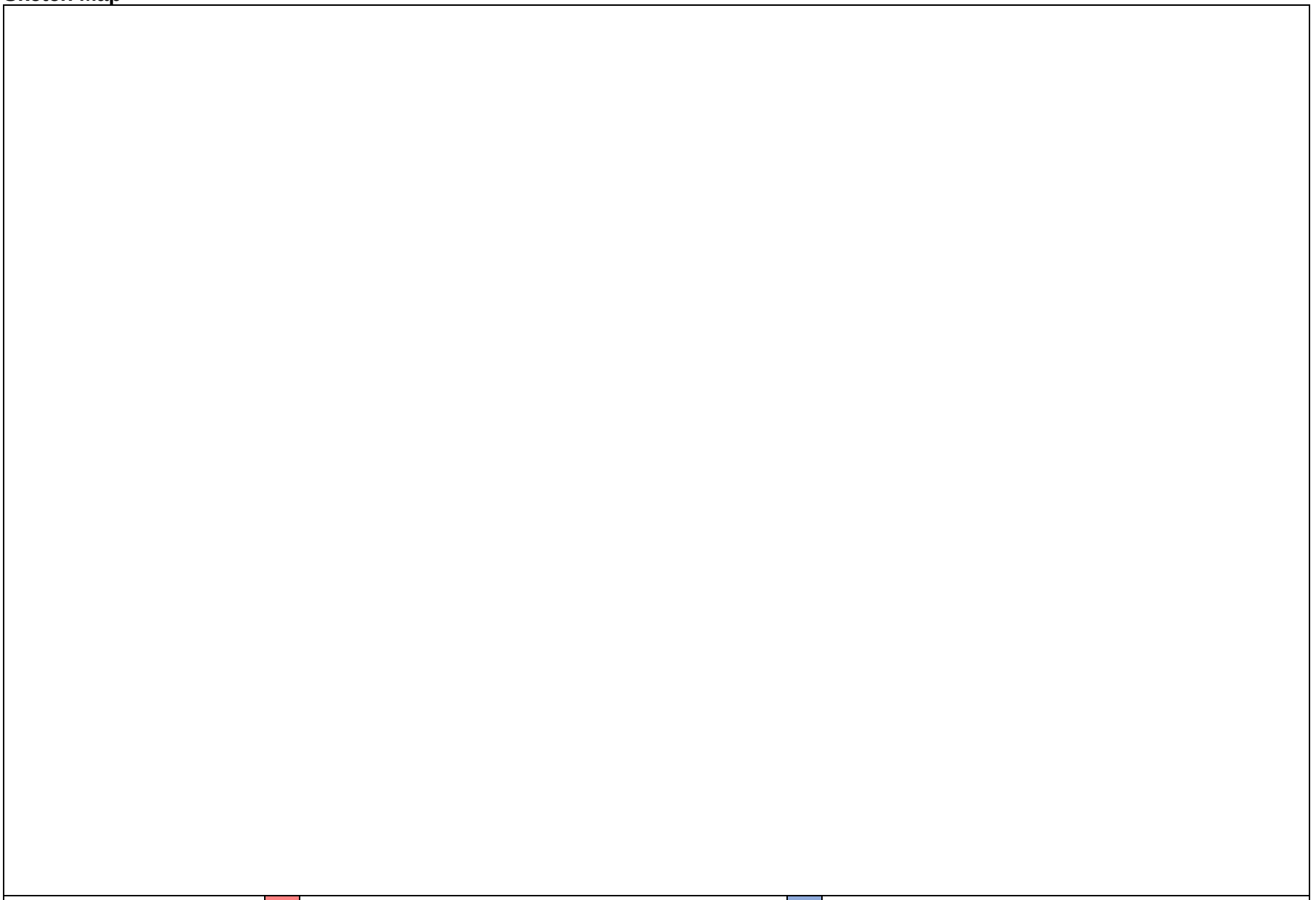
Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design. All practices shall be maintained in accordance with their respective standards.

Qualified Inspector _____ Qualified Inspector Signature _____

Qualified Professional _____ Qualified Professional Signature _____

The above signed acknowledges that, to the best of his/her knowledge, all information provided in this report is accurate and complete. If there are any questions, comments, or concerns regarding the contents of this report, feel free to contact Inspector's Name at XXX-XXX-XXXX or email address.

Sketch Map



Legend:		Area of Active Soil Disturbance		Area has Achieved Temporary Stabilization
		Area of Inactive Soil Disturbance		Area has Achieved Final Stabilization

Inspection Photographs

1		**2**	

3		**4**	

5		**6**	

7		**8**	

9	**10**

.	
11	**12**

Appendix N – Completed SWPPP Inspection Reports