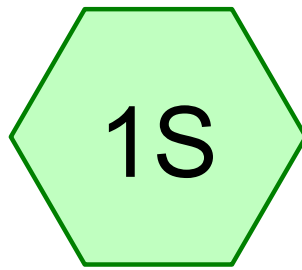
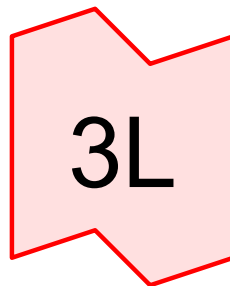


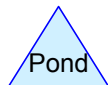
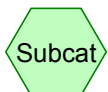
APPENDIX A
PRE-DEVELOPMENT HYDROLOGY



EDRA-1



POI #1



Routing Diagram for EXISTING

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Type II 24-hr 2-YR Rainfall=3.28"

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Page 2

Summary for Subcatchment 1S: EDRA-1

Runoff = 3.82 cfs @ 12.05 hrs, Volume= 0.314 af, Depth= 0.37"

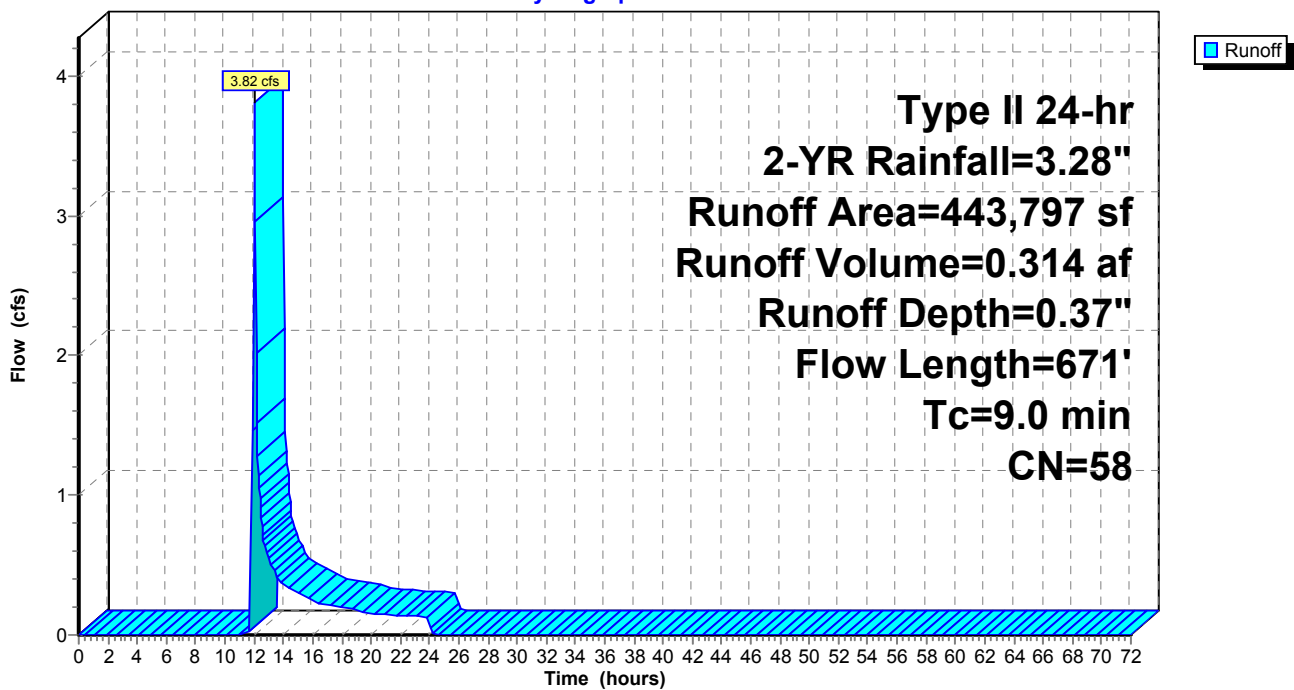
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Type II 24-hr 2-YR Rainfall=3.28"

Area (sf)	CN	Description
417,728	58	Meadow, non-grazed, HSG B
5,214	98	Paved parking, HSG B
20,855	58	Meadow, non-grazed, HSG B
443,797	58	Weighted Average
438,583		98.83% Pervious Area
5,214		1.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0450	0.27		Sheet Flow, Range n= 0.130 P2= 3.28"
1.5	321	0.0500	3.60		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	250	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.0	671	Total			

Subcatchment 1S: EDRA-1

Hydrograph



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Type II 24-hr 2-YR Rainfall=3.28"

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Page 3

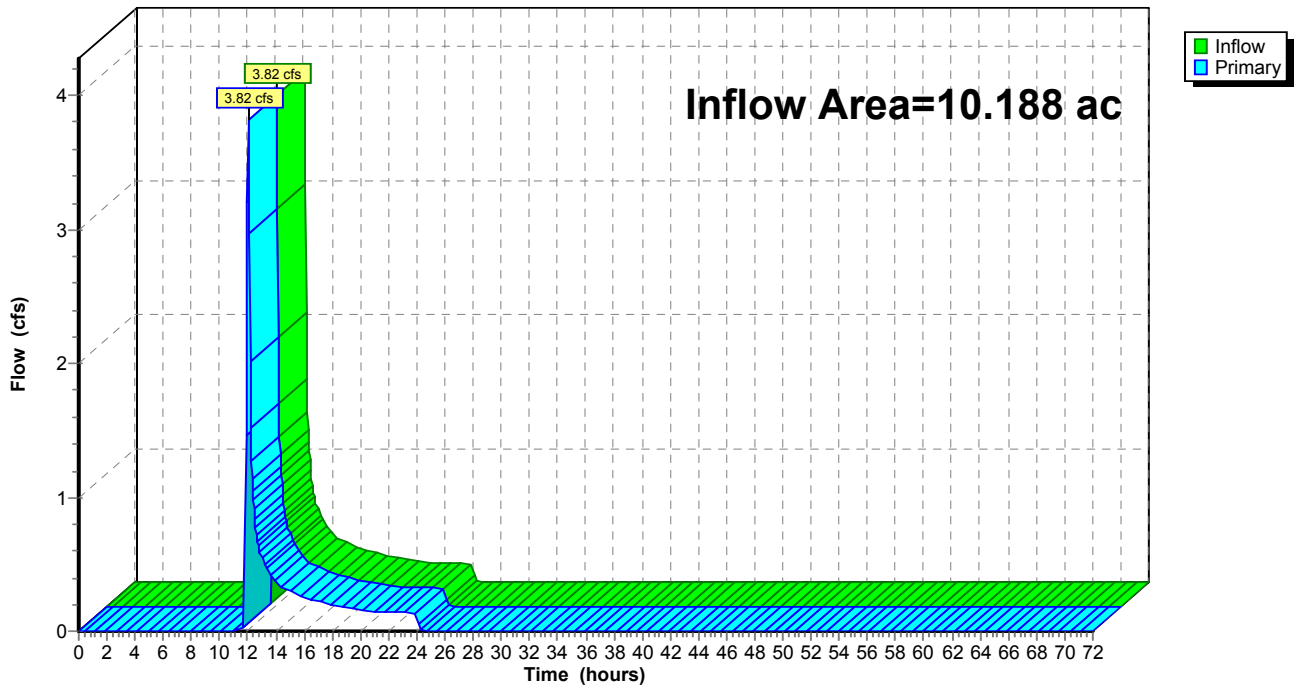
Summary for Link 3L: POI #1

Inflow Area = 10.188 ac, 1.17% Impervious, Inflow Depth = 0.37" for 2-YR event
Inflow = 3.82 cfs @ 12.05 hrs, Volume= 0.314 af
Primary = 3.82 cfs @ 12.05 hrs, Volume= 0.314 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 3L: POI #1

Hydrograph



EXISTING

Summary for Subcatchment 1S: EDRA-1

Runoff = 9.54 cfs @ 12.03 hrs, Volume= 0.607 af, Depth= 0.72"

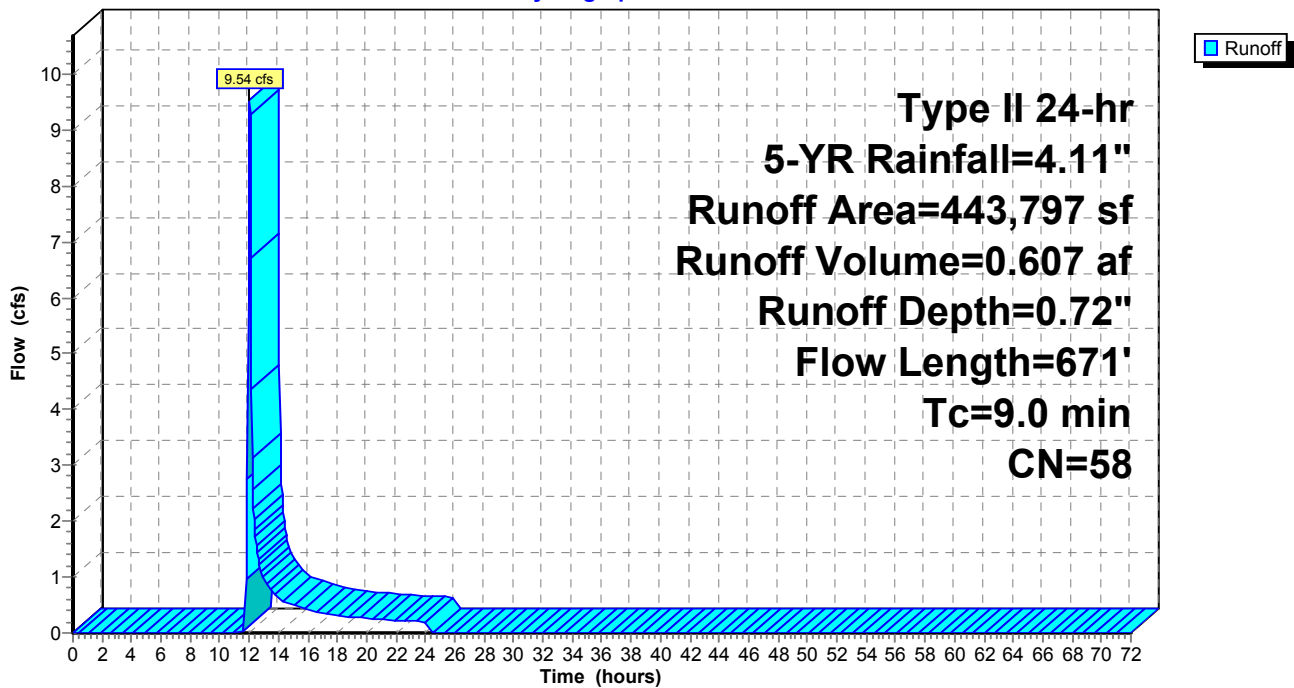
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Type II 24-hr 5-YR Rainfall=4.11"

Area (sf)	CN	Description
417,728	58	Meadow, non-grazed, HSG B
5,214	98	Paved parking, HSG B
20,855	58	Meadow, non-grazed, HSG B
443,797	58	Weighted Average
438,583		98.83% Pervious Area
5,214		1.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0450	0.27		Sheet Flow, Range n= 0.130 P2= 3.28"
1.5	321	0.0500	3.60		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	250	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.0	671	Total			

Subcatchment 1S: EDRA-1

Hydrograph



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Type II 24-hr 5-YR Rainfall=4.11"

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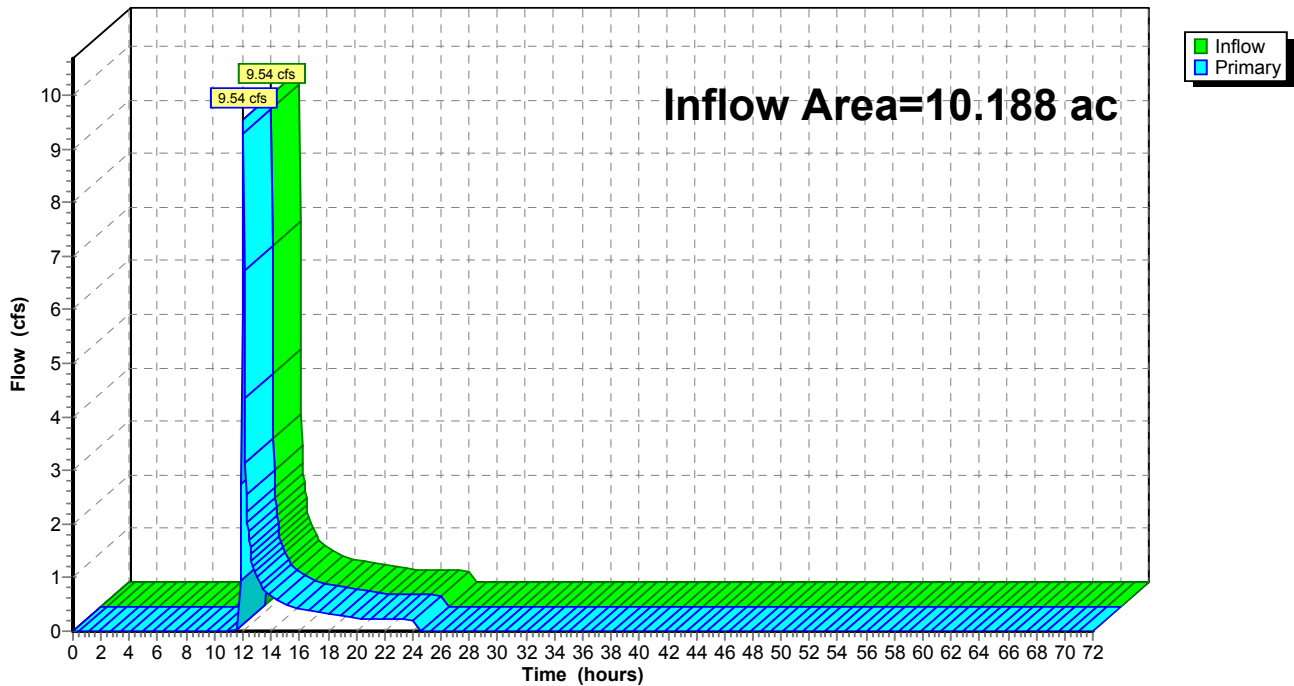
Summary for Link 3L: POI #1

Inflow Area = 10.188 ac, 1.17% Impervious, Inflow Depth = 0.72" for 5-YR event
Inflow = 9.54 cfs @ 12.03 hrs, Volume= 0.607 af
Primary = 9.54 cfs @ 12.03 hrs, Volume= 0.607 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 3L: POI #1

Hydrograph



EXISTING

Summary for Subcatchment 1S: EDRA-1

Runoff = 15.53 cfs @ 12.02 hrs, Volume= 0.905 af, Depth= 1.07"

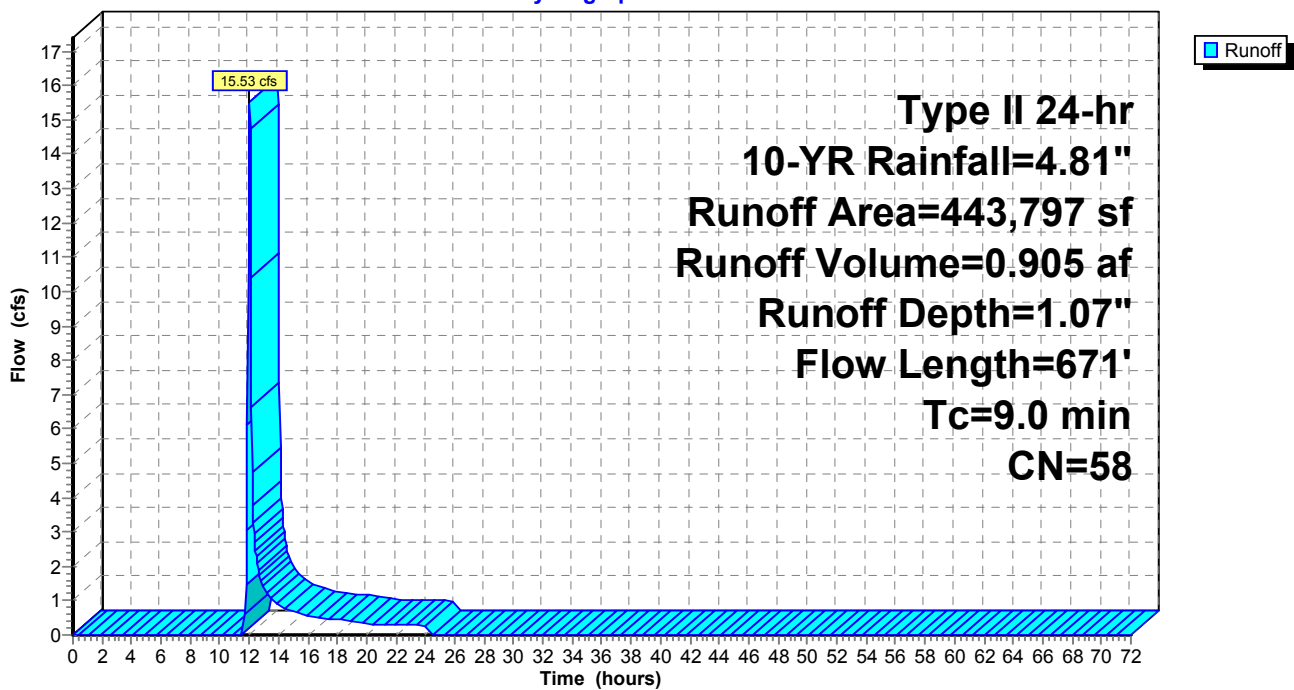
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-YR Rainfall=4.81"

Area (sf)	CN	Description
417,728	58	Meadow, non-grazed, HSG B
5,214	98	Paved parking, HSG B
20,855	58	Meadow, non-grazed, HSG B
443,797	58	Weighted Average
438,583		98.83% Pervious Area
5,214		1.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0450	0.27		Sheet Flow, Range n= 0.130 P2= 3.28"
1.5	321	0.0500	3.60		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	250	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.0	671	Total			

Subcatchment 1S: EDRA-1

Hydrograph



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Type II 24-hr 10-YR Rainfall=4.81"

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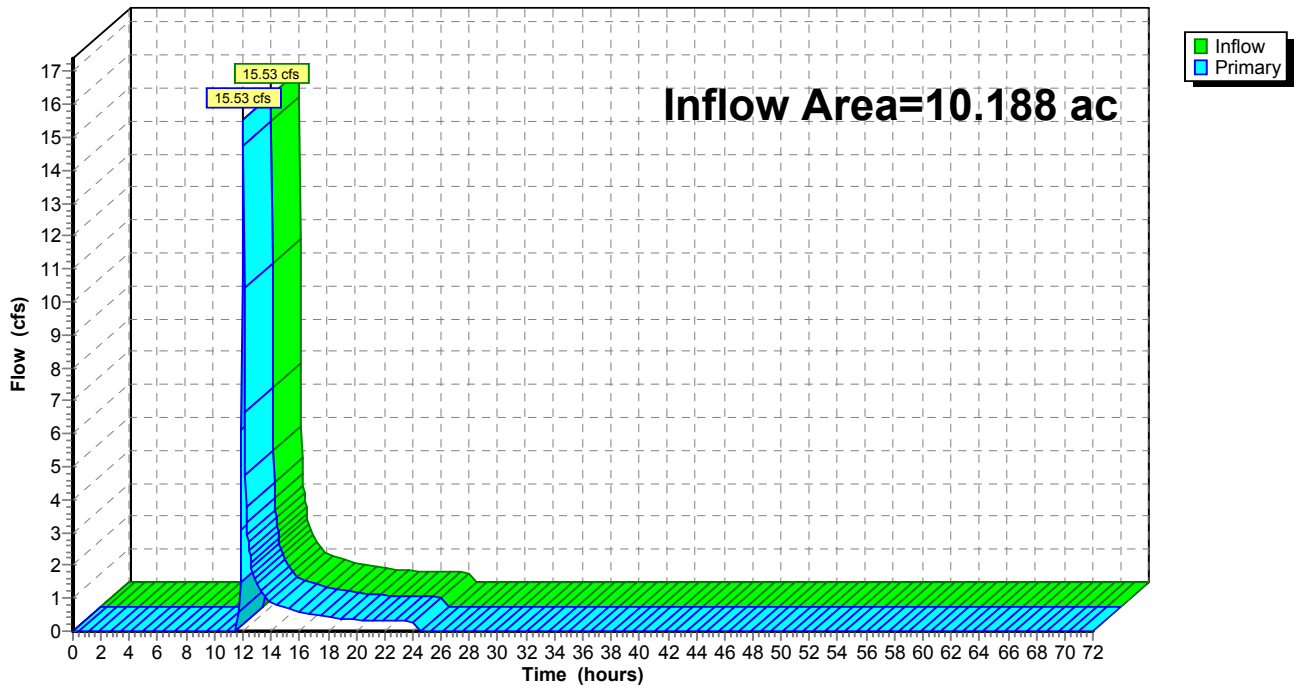
Summary for Link 3L: POI #1

Inflow Area = 10.188 ac, 1.17% Impervious, Inflow Depth = 1.07" for 10-YR event
Inflow = 15.53 cfs @ 12.02 hrs, Volume= 0.905 af
Primary = 15.53 cfs @ 12.02 hrs, Volume= 0.905 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 3L: POI #1

Hydrograph



EXISTING

Summary for Subcatchment 1S: EDRA-1

Runoff = 25.32 cfs @ 12.02 hrs, Volume= 1.397 af, Depth= 1.65"

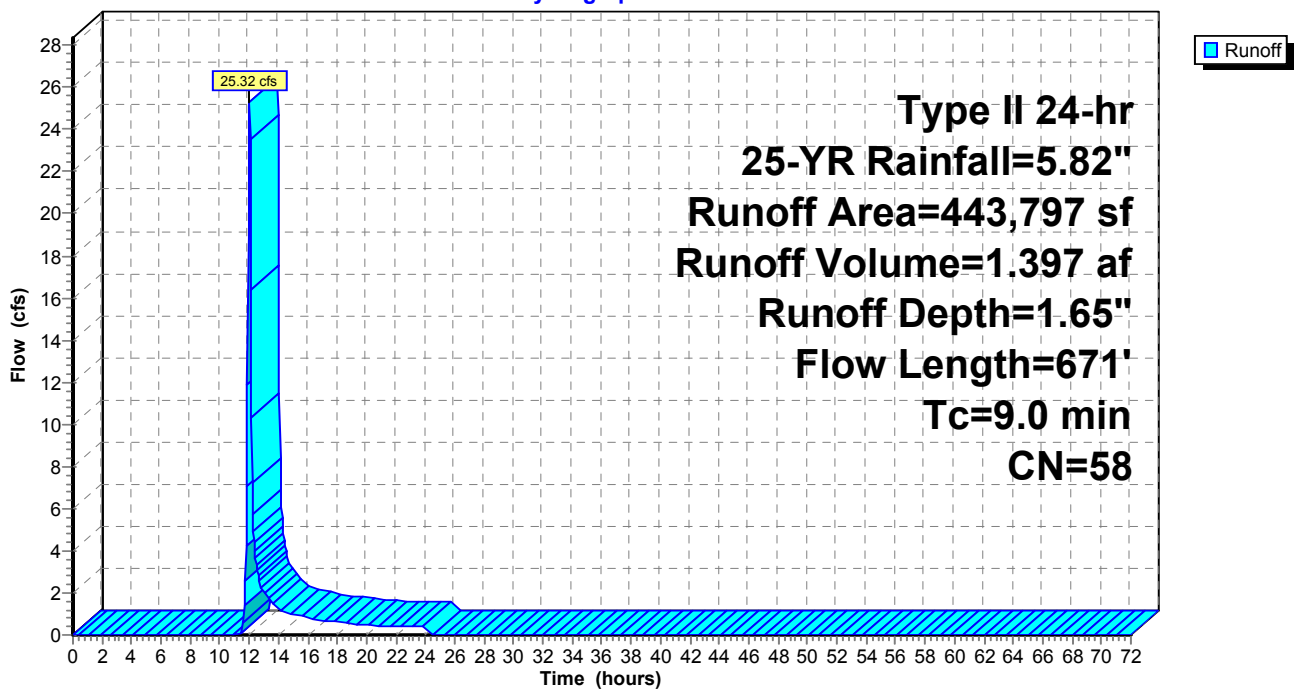
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Type II 24-hr 25-YR Rainfall=5.82"

Area (sf)	CN	Description
417,728	58	Meadow, non-grazed, HSG B
5,214	98	Paved parking, HSG B
20,855	58	Meadow, non-grazed, HSG B
443,797	58	Weighted Average
438,583		98.83% Pervious Area
5,214		1.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0450	0.27		Sheet Flow, Range n= 0.130 P2= 3.28"
1.5	321	0.0500	3.60		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	250	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.0	671	Total			

Subcatchment 1S: EDRA-1

Hydrograph



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Type II 24-hr 25-YR Rainfall=5.82"

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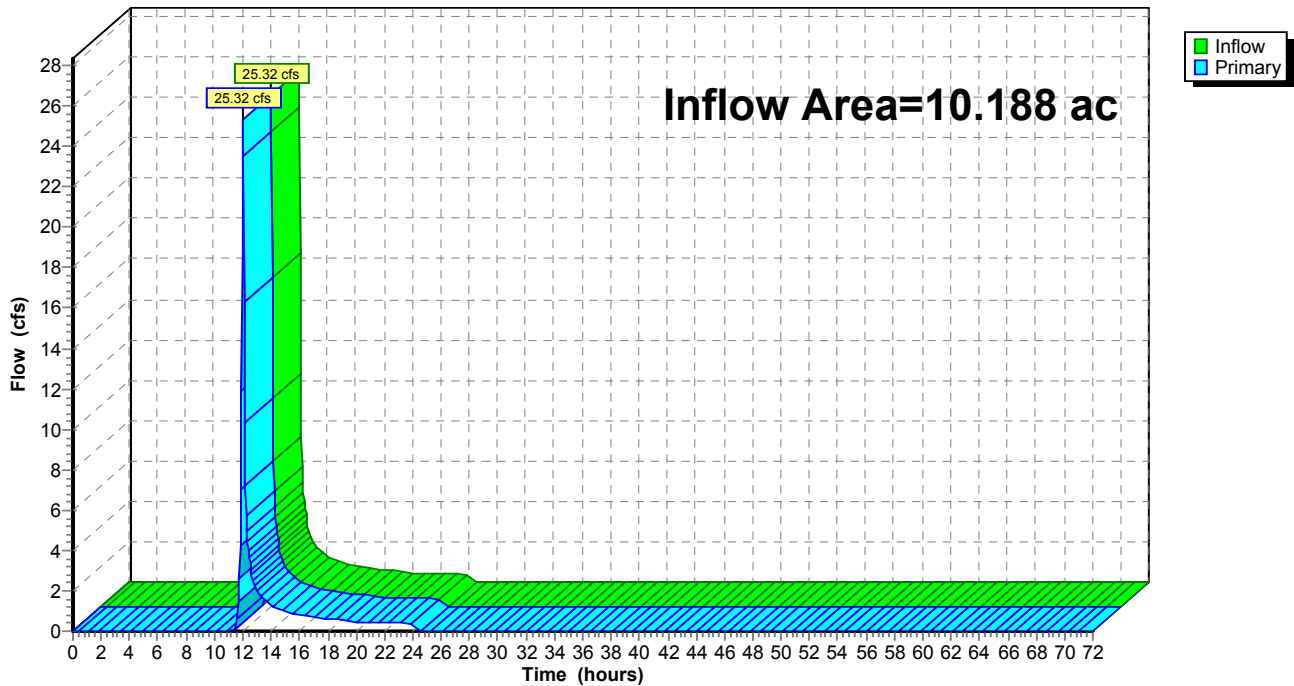
Summary for Link 3L: POI #1

Inflow Area = 10.188 ac, 1.17% Impervious, Inflow Depth = 1.65" for 25-YR event
Inflow = 25.32 cfs @ 12.02 hrs, Volume= 1.397 af
Primary = 25.32 cfs @ 12.02 hrs, Volume= 1.397 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 3L: POI #1

Hydrograph



EXISTING

Summary for Subcatchment 1S: EDRA-1

Runoff = 34.49 cfs @ 12.01 hrs, Volume= 1.863 af, Depth= 2.19"

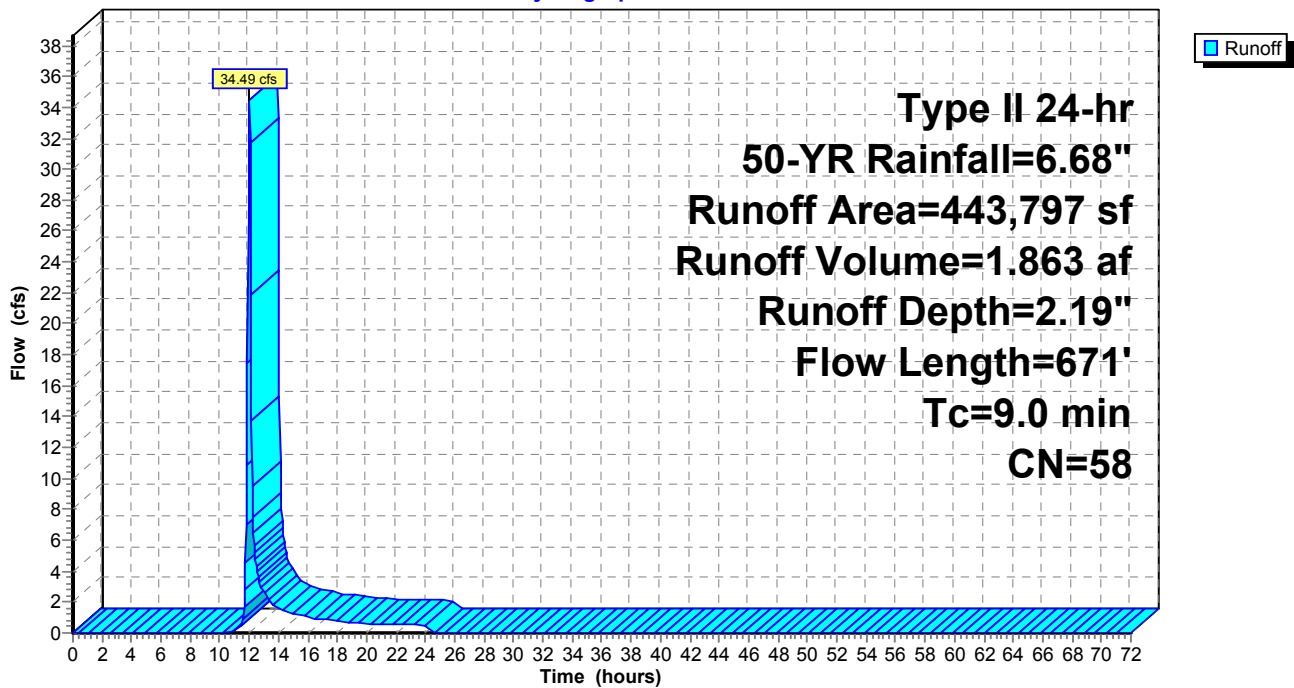
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Type II 24-hr 50-YR Rainfall=6.68"

Area (sf)	CN	Description
417,728	58	Meadow, non-grazed, HSG B
5,214	98	Paved parking, HSG B
20,855	58	Meadow, non-grazed, HSG B
443,797	58	Weighted Average
438,583		98.83% Pervious Area
5,214		1.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0450	0.27		Sheet Flow, Range n= 0.130 P2= 3.28"
1.5	321	0.0500	3.60		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	250	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.0	671	Total			

Subcatchment 1S: EDRA-1

Hydrograph



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Type II 24-hr 50-YR Rainfall=6.68"

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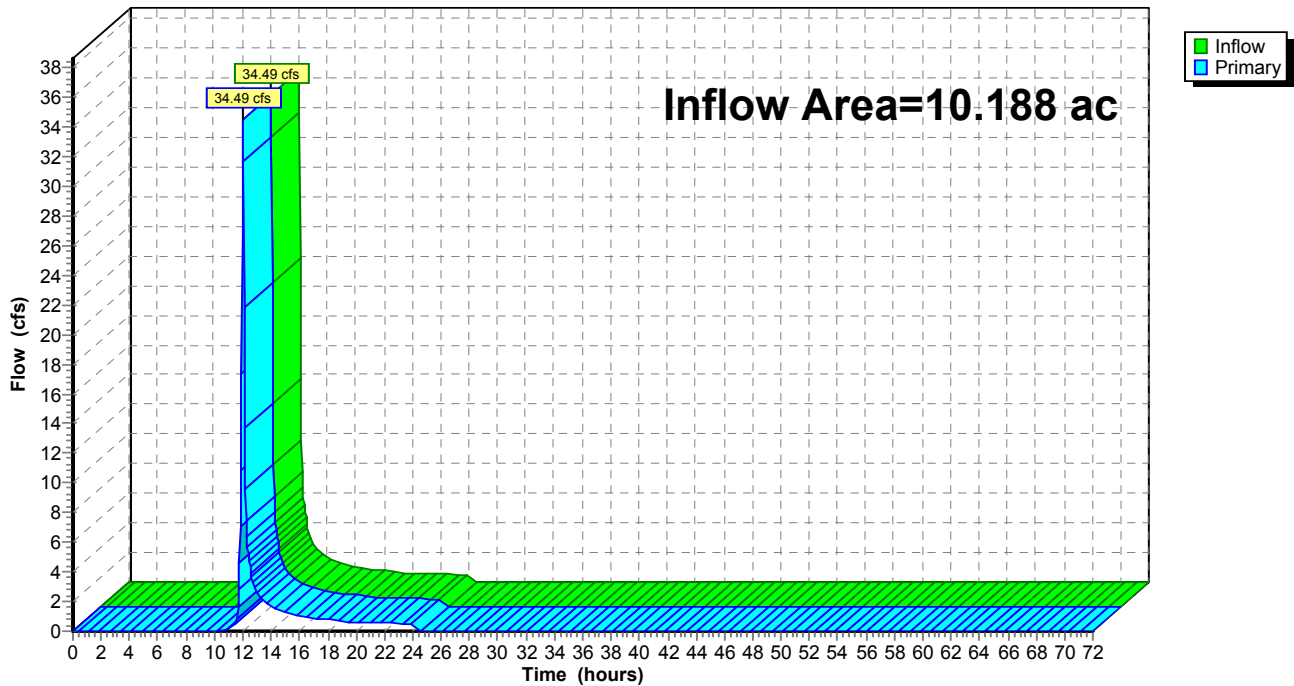
Summary for Link 3L: POI #1

Inflow Area = 10.188 ac, 1.17% Impervious, Inflow Depth = 2.19" for 50-YR event
Inflow = 34.49 cfs @ 12.01 hrs, Volume= 1.863 af
Primary = 34.49 cfs @ 12.01 hrs, Volume= 1.863 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 3L: POI #1

Hydrograph



EXISTING

Summary for Subcatchment 1S: EDRA-1

Runoff = 44.95 cfs @ 12.01 hrs, Volume= 2.399 af, Depth= 2.83"

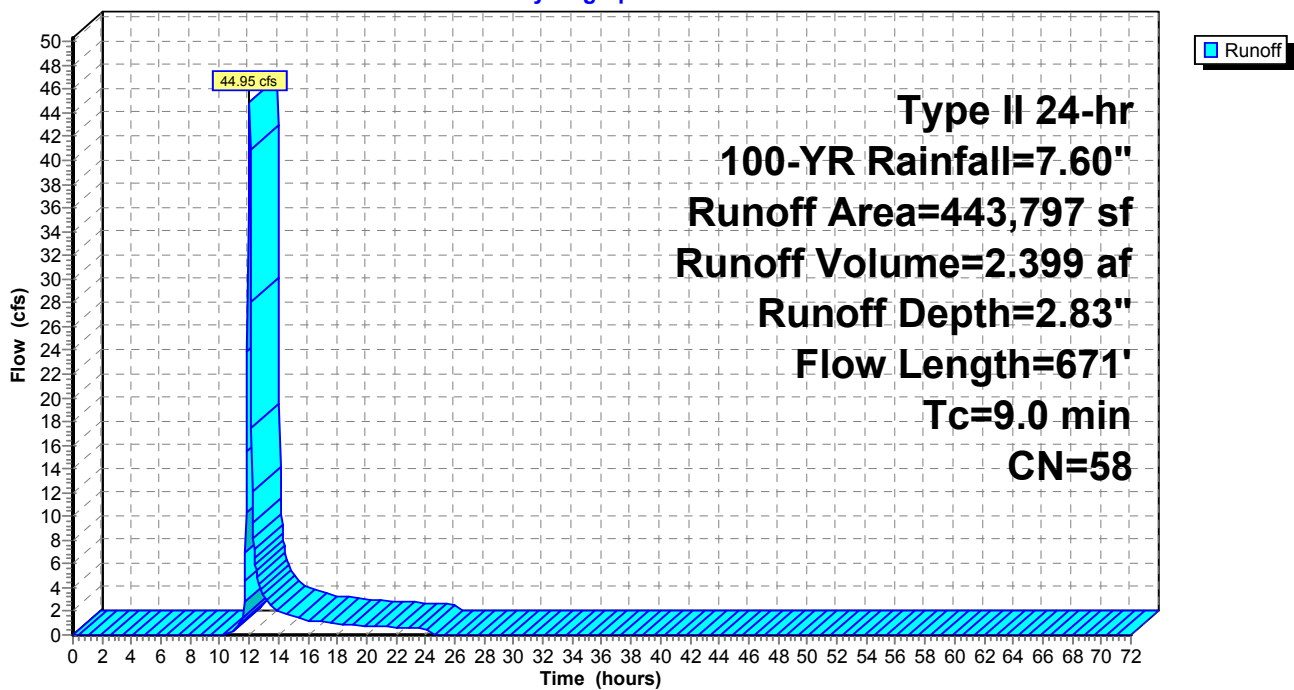
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-YR Rainfall=7.60"

Area (sf)	CN	Description
417,728	58	Meadow, non-grazed, HSG B
5,214	98	Paved parking, HSG B
20,855	58	Meadow, non-grazed, HSG B
443,797	58	Weighted Average
438,583		98.83% Pervious Area
5,214		1.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0450	0.27		Sheet Flow, Range n= 0.130 P2= 3.28"
1.5	321	0.0500	3.60		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	250	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.0	671	Total			

Subcatchment 1S: EDRA-1

Hydrograph



EXISTING

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Type II 24-hr 100-YR Rainfall=7.60"

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Summary for Link 3L: POI #1

Inflow Area = 10.188 ac, 1.17% Impervious, Inflow Depth = 2.83" for 100-YR event
Inflow = 44.95 cfs @ 12.01 hrs, Volume= 2.399 af
Primary = 44.95 cfs @ 12.01 hrs, Volume= 2.399 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 3L: POI #1

Hydrograph

